

# Taxonomy, nomenclature and phylogeny of the tribes Hoplopisthiini Senna & Calabresi, 1919 and Microtrachelizini Zimmerman, 1994 (Coleoptera, Brentidae)

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## ABSTRACT

Genera *Anaraiorrhinus* Damoiseau, 1987, *Araiorrhinus* Senna, 1893 and *Microtrachelizus* Senna, 1893 are reviewed. A new species is described from Mount Kinabalu (Borneo), *Microtrachelizus floreni* n. sp. A lectotype is designated for *M. occultus* Kleine, 1935. Several new synonymies are proposed at specific level: *M. fluxus* Kleine, 1923, n. syn. for *M. accomodatus* Kleine, 1922; *M. apertus* Kleine, 1925, n. syn. for *M. bhamoensis* (Senna, 1892); *M. dubius* Kleine, 1935, n. syn. for *M. brevisulcatus* Senna, 1894; *M. sternopilosus* Damoiseau, 1987 and *M. temporalis* Damoiseau, 1987, n. syn. for *M. contiguus* (Senna, 1893); *M. compactus* Mantilleri, 2010, n. syn. for *M. costatus* Damoiseau, 1987; *M. pseudobhamoensis* Mantilleri, 2007, n. syn. for *M. occultus* Kleine, 1935; *M. aethiopicus* Calabresi, 1920, *M. minutus* Kleine, 1922, *M. sordidus* Kleine, 1922, *M. copulatus* Kleine, 1924, *M. captiosus* Kleine, 1924, n. syn. for *M. rectestriatus* (Fairmaire, 1897). The distribution of each species is given. *Microtrachelizus fractus* Kleine, 1924 is newly recorded from Gabon. Identification keys are proposed for all the genera of Hoplopisthiini and Microtrachelini, and for the species of *Anaraiorrhinus*, *Araiorrhinus*, *Entomopisthius* Muizon, 1959 and *Microtrachelizus*. Following this taxonomic revision, a phylogenetic analysis is performed to test if Hoplopisthiini Senna & Calabresi, 1919 and Microtrachelizini Zimmerman, 1994 are two distinct groups belonging to different subfamilies of Brentidae Billberg, 1820 as previously hypothesised, and if *Anaraiorrhinus* belongs to Atopobrentini Damoiseau, 1965. Maximum parsimony and Bayesian analysis were performed on a matrix of 57 morphological characters of the adults and 76 taxa (72 belonging to all genera of Hoplopisthiini, Microtrachelizini and Atopobrentini, and four outgroups belonging to Trachelizini Lacordaire, 1866, Pseudococephalini Kleine, 1922, Cyphagogini Kolbe, 1892 and Stereodermini Sharp, 1895). These analysis show that: 1) Hoplopisthiini are included in Microtrachelizini; therefore, these two tribes are synonymised under the name Hoplopisthiini; 2) Hoplopisthiini are more closely related to Cyphagogini than to Trachelizinae; 3) *Anaraiorrhinus* is probably not monophyletic and is a member of Hoplopisthiini and it is therefore removed from Atopobrentini; 4) a new combination is proposed: *Parapisthius suturalis* (Damoiseau, 1961) n. comb.; 5) the genus *Microtrachelizus*

## KEY WORDS

Curculionoidea,  
cladistics,  
Bayesian,  
morphology,  
revision,  
biogeography,  
Gondwana,  
new combination,  
new species.

is not monophyletic. On the base of the trees obtained and current geographical distribution, the origin and biogeography of Hoplopisthiini is discussed. Finally, a checklist of the tribe Hoplopisthiini is also given.

## RÉSUMÉ

*Taxonomie, nomenclature et phylogénie des tribus Hoplopisthiini Senna & Calabresi, 1919 et Microtrachelizini Zimmerman, 1994 (Coleoptera, Brentidae).*

Les genres *Anaraiorrhinus* Damoiseau, 1987, *Araiorrhinus* Senna, 1893 et *Microtrachelizus* Senna, 1893 sont révisés. Une nouvelle espèce est décrite du mont Kinabalu (Bornéo) : *Microtrachelizus floreni* n. sp. Un lectotype est désigné pour *M. occultus* Kleine, 1935. Plusieurs nouvelles synonymies sont proposées au niveau spécifique : *M. fluxus* Kleine, 1923, n. syn. de *M. accomodatus* Kleine, 1922 ; *M. apertus* Kleine, 1925, n. syn. de *M. bhamoensis* (Senna, 1892) ; *M. dubius* Kleine, 1935, n. syn. de *M. brevisulcatus* Senna, 1894 ; *M. sternopilosus* Damoiseau, 1987 et *M. temporalis* Damoiseau, 1987, n. syn. de *M. contiguus* (Senna, 1893) ; *M. compactus* Mantilleri, 2010, n. syn. de *M. costatus* Damoiseau, 1987 ; *M. pseudobhamoensis* Mantilleri, 2007, n. syn. de *M. occultus* Kleine, 1935 ; *M. aethiopicus* Calabresi, 1920, n. syn. de *M. minutus* Kleine, 1922, *M. sordidus* Kleine, 1922, *M. copulatus* Kleine, 1924, et *M. captiosus* Kleine, 1924. La répartition connue de chaque espèce est donnée. *Microtrachelizus fractus* Kleine, 1924, est signalé pour la première fois au Gabon. Des clefs d'identification sont proposées pour tous les genres d'Hoplopisthiini et de Microtrachelini, et pour les espèces des genres *Anaraiorrhinus*, *Araiorrhinus*, *Entomopisthius* Muizon, 1959 et *Microtrachelizus*. Suite à cette révision taxonomique, une analyse phylogénétique a été effectuée afin de tester si Hoplopisthiini Senna & Calabresi, 1919 et Microtrachelizini Zimmerman, 1994 forment effectivement deux groupes distincts appartenant à deux sous-familles différentes de Brentidae Billberg, 1820 tel que précédemment supposé, et si *Anaraiorrhinus* appartient aux Atopobrentini Damoiseau, 1965. Une analyse cladistique en maximum de parcimonie ainsi qu'une analyse bayésienne portant sur 57 caractères morphologiques des adultes et 76 taxons (72 appartenant à tous les genres d'Hoplopisthiini, Microtrachelizini et Atopobrentini, et quatre groupes externes appartenant aux Trachelizini Lacordaire, 1866, Pseudocecephalini Kleine, 1922, Cyphagogini Kolbe, 1892 et Stereodermini Sharp, 1895). Ces analyses montrent que : 1) les Hoplopisthiini sont inclus dans les Microtrachelizini; les deux tribus sont donc mises en synonymie sous le nom Hoplopisthiini ; 2) les Hoplopisthiini sont plus proches parents des Cyphagogini que des Trachelizinae ; 3) *Anaraiorrhinus* n'est probablement pas monophylétique et fait bien partie des Hoplopisthiini ; il est donc ôté des Atopobrentini ; 4) une nouvelle combinaison est proposée : *Parapisthius suturalis* (Damoiseau, 1961) n. comb. ; 5) le genre *Microtrachelizus* n'est pas monophylétique. Sur la base des arbres obtenus et de la distribution géographique actuelle, l'origine et l'histoire biogéographique des Hoplopisthiini sont discutées. Enfin, un catalogue de la tribu des Hoplopisthiini est présenté.

## MOTS CLÉS

Curculionoidea,  
cladistique,  
inférence bayésienne,  
morphologie,  
révision,  
biogéographie,  
Gondwana,  
combinaison nouvelle,  
espèce nouvelle.

## INTRODUCTION

The tribes Hoplopisthiini Senna & Calabresi, 1919, and Microtrachelizini Zimmerman, 1994 are actually

two different groups of very unequal size. Following the revision of the genera *Hoplopisthius* Senna, 1892, and *Carcinopisthius* Kolbe, 1892 (Mantilleri 2010a), and the synonymy between the genera *Ipsopisthius*



Kabakov, 2001 and *Aneorhachis* Kleine, 1923 (Mantilleri 2011a), Hoplopisthiini now includes only nine species in the single genus *Hoplopisthius*. On the opposite, the tribe Microtrachelizini is much more diverse and gather a large number of species (more than 80) distributed among nine genera (*Aneorhachis*, *Araiorrhinus* Senna, 1893, *Entomopisthius* Muizon, 1959, *Higonius* Lewis, 1883, *Howeius* Mantilleri, 2011, *Microtrachelizus* Senna, 1893, *Neohigonius* Goossens, 2005, *Parapisthius* Kleine, 1935 and *Pseudohigonius* Damoiseau, 1987). At the beginning, those two tribes were not separated and formed the Hoplopisthi of Senna & Calabresi (1919). Damoiseau (1963a, 1987) considered it as being a member of the subfamily Calodrominae Kolbe, 1916 (today Cyphagoginae Kolbe, 1892). Its generic composition was slightly different. It did not include the genus *Araiorrhinus*: because of gonopodes IX with apical styli and the lack of sclerified teeth at the apex of the gonopods, it was considered a member of the tribe Atopobrentini Damoiseau, 1965. Finally, Zimmerman (1994) splitted Hoplopisthiini in two groups, creating the subtribe Microtrachelizina (raised later at the rank of tribe by Alonso-Zarazaga & Lyal [1999]), adding to this new subtribe the genus *Araiorrhinus* and moving it into the subfamily Trachelizinae Lacordaire, 1866, but leaving Hoplopisthiini in the subfamily Cyphagoginae. These actions were performed without any justification by this author but were admitted in subsequent catalogues of the family Brentidae Billberg, 1820 (Alonso-Zarazaga & Lyal 1999; Sforzi & Bartolozzi 2004). In order to test the current taxonomic position of these groups, a phylogenetic analysis is proposed in this work; it includes representatives of all the genera of the two tribes and of the three genera of Atopobrentini (*Anaraiorrhinus* Damoiseau, 1987, *Atopobrentus* Damoiseau, 1965 and *Neocecephalus* Senna, 1898). Then all genera are reviewed and identification keys and descriptions are proposed at generic and specific levels for groups not recently revised.

## MATERIAL AND METHODS

Type specimens of all species were examined (except when mentioned), photographed (Figs 7-14) and

dissected. Male and female genitalia were extracted by removing the abdomen and cleaning it in boiling potassium hydroxide. Male and female genitalia were glued on the card with the specimen or mounted in Euparal® under microscope cover glasses for examination. Drawings were made through a camera lucida.

For each species, distributional data are arranged by countries, in alphabetical order.

For phylogenetic analysis, the ingroup consists of 72 species belonging to the tribes Atopobrentini, Hoplopisthiini and Microtrachelizini. The outgroup consists of four species belonging to Cyphagogini Kolbe, 1892, Stereodermini Sharp, 1895, Pseudocecephalini Kleine, 1922 and Trachelizini Lacordaire, 1866, the two former being members of the subfamily Cyphagoginae and the two latter of the subfamily Trachelizinae. This should allow to test if Microtrachelizini are more closely related to Trachelizinae, as suggested by Zimmerman (1994), than to Cyphagoginae.

Table 1 presents the matrix used for data processing by the software PAUP\* 4.0b10 (Swofford 2001). Multiple states characters were not ordered and the same weight was given to each character in order to limit the number of *a priori* hypothesis. A heuristic search in maximum of parsimony was performed using Tree bisection and reconnection branch swapping algorithm; characters were polarised using outgroup comparison method (Watrous & Wheeler 1981). Number of saved trees was limited to 50 000. Bootstrap support values for the trees were obtained after 500 replicates.

Using the same data matrix (Table 1) than for parsimony analysis, a Bayesian analysis was also performed. Bayesian Metropolis coupled Markov chain Monte Carlo (MCMC) estimation of phylogeny was carried out using MrBayes 3.1.2 (Huelsenbeck & Ronquist 2001). Bayesian inference of phylogeny is based on a quantity called the posterior probability distribution of trees, which is the probability of a tree conditioned on the observations. To find the best-fitting model of evolution for the Bayesian analysis, I compared two models (Nylander *et al.* 2004): first, the Markov k model (Mk), which assumes equal rates of change among characters (Lewis 2001); second, a model using gamma

TABLE 1. — Matrix used for data processing.

	1	1	2	3	4	5
	1	1	1	1	1	1
<i>Nothogaster</i> (Trachelizinae)	0000000000	2000000000	0000000000	0000000000	0000000000	00000000
<i>Trachelizus</i> (Trachelizinae)	0000010000	2000000000	0000100000	1111000000	0000000000	00000000
<i>Cyphagogus</i> (Cyphagogini)	1000000000	0010003001	0001110000	0000000010	0000000100	11101000
<i>Afrodermus</i> (Stereodermini)	0000010001	1000010001	0000010000	0000000000	0000000100	11000000
<i>Atopobrentus</i> (Atopobrentini)	0000000000	1000010?00	0000210000	0000000000	0000000000	00000000
<i>Neoceocephalus</i> (Atopobrentini)	0000000001	2000010001	0000110000	0001000000	0000000000	00000000
<i>Anaraiorrhinus conquisitus</i>	0000010001	1011101001	01?1111000	0?11000111	110?110???	????????
<i>Anaraiorrhinus elongatus</i>	1000000001	1211000001	0001110002	0111000110	1101110110	11011100
<i>Aneorhachis astricta</i>	0001011001	0011100101	0001110000	0111000111	1100010110	11111120
<i>Aneorhachis incerta</i>	0001011001	0011000101	0001110002	0110000?00	0100010110	11111121
<i>Araiorrhinus armatus</i>	0100010?01	2111002101	0001110001	01?0000010	1001?1??10	????????
<i>Araiorrhinus beelsoni</i>	0100010001	2111000001	0001110001	0110000010	0000010010	10010000
<i>Araiorrhinus howitti</i>	0100010001	2111000101	0001110000	0111000010	0000110010	10010000
<i>Araiorrhinus levisulcatus</i>	0102010001	2111001101	0001110000	0110000010	0000010010	10010000
<i>Araiorrhinus longirostris</i>	0102010001	2111002101	0001110000	0110000010	0001110010	10010000
<i>Araiorrhinus recurvicosta</i>	0102010?01	2111000101	0001110000	01?0000010	0000?1??10	????????
<i>Araiorrhinus sondaicus</i>	0100010001	2111000101	0001110000	0110000010	0001110010	10010000
<i>Araiorrhinus timoriensis</i>	0102010001	2111001101	00?1110000	0?11000010	100?0100??	10010000
<i>Araiorrhinus zimmermani</i>	0100010001	2111002001	0001110002	0110000010	0000010010	10010000
<i>Entomopisthius leleupi</i>	1000010001	0211110021	1101110000	0110001011	1101110110	11111120
<i>Entomopisthius laevigatus</i>	1000000001	0211110021	1101110000	0111001111	1101010110	11111120
<i>Higonius poweri</i>	1000110011	0211000101	0001110002	0221000211	1100011111	11111110
<i>Hoplopisthius trichemerus</i>	1000010100	0011100001	1101111102	0110010110	1101110110	11111120
<i>Hoplopisthius fruhstorferi</i>	1000010101	0011110001	1101110100	0110010110	0101110110	11111120
<i>Hoplopisthius kolbei</i>	1000010001	0011100000	1101110000	0110010110	0100010110	11111120
<i>Howeius micropterus</i>	0100010001	1211002001	0001110000	0110000010	0000010110	11011110
<i>Microtrachelizus accomodatus</i>	0000010001	1211000101	0001111000	0330000??1	1101110110	11111110
<i>Microtrachelizus altostratus</i>	0000020?01	1211000101	0001111002	01?0000111	1101?1??11	????????
<i>Microtrachelizus australicus</i>	0000010001	1011100000	0001110000	0111000011	0100010110	11111110
<i>Microtrachelizus beneficus</i>	0000020001	1211000101	0001111000	0110000111	1101110110	11111110
<i>Microtrachelizus bhamoensis</i>	0000020001	1211000101	0001111002	0110000111	1101110111	11111120
<i>Microtrachelizus borneensis</i>	0000020?01	1211000101	0001110000	01?0000??1	1101?1??10	????????
<i>Microtrachelizus brevisulcatus</i>	0000020001	1111001100	0001111002	0110000011	0101110111	11111120
<i>Microtrachelizus charlottae</i>	1000010001	0211110101	00?1110000	0?10000111	110?0101??	11111110
<i>Microtrachelizus contiguus</i>	0000010001	1211001101	0011111000	0110000111	1101110110	11111110
<i>Microtrachelizus coomani</i>	0000010001	2111001000	0001111002	0110000??1	0001110110	11111120
<i>Microtrachelizus costatus</i>	0000010001	1211002101	00?1110000	0110200111	1101110110	11111121
<i>Microtrachelizus cylindricornis</i>	0000020001	1211000101	0001110002	0110000211	1101110111	11111120
<i>Microtrachelizus elephas</i>	0000020001	1211000100	00?1111002	0?10000??1	110?1101??	11111120
<i>Microtrachelizus enigmaticus</i>	1010010?00	0211002001	0001110000	01?0100?00	0110?0??10	????????
<i>Microtrachelizus floreni</i> n. sp.	1000010001	1211000121	0011110002	0110000111	1101110111	11111120
<i>Microtrachelizus fractus</i>	0000010001	1211000001	0001110001	0110000010	1100010110	11111110
<i>Microtrachelizus ghecuanus</i>	0000010001	1211000001	0001111002	0111000111	1101110110	11111?00
<i>Microtrachelizus hlavaci</i>	0000020001	1211000101	0001111002	0110000111	1101110110	11111120
<i>Microtrachelizus imbecillus</i>	0000000000	0011110001	0001110002	0110100?01	110111??10	????????
<i>Microtrachelizus inexpectatus</i>	0000010001	12110010?1	00?1111002	0?10200?01	110?0101??	11111110
<i>Microtrachelizus lepidus</i>	0000020001	1211000020	0001111002	0110000?01	1101110110	11111110
<i>Microtrachelizus lyratus</i>	0000010001	2111000120	0001110001	0111000010	0001110111	11111120
<i>Microtrachelizus macrophthalmus</i>	0000020?01	1011101101	0001111000	01?0000?01	1101?1??10	????????
<i>Microtrachelizus mentaweicus</i>	0000010001	1211001101	0001111001	0110200?01	1101110110	11111111
<i>Microtrachelizus monilicornis</i>	1010020?00	0211000101	0001110000	01?0100?01	1110?1??10	????????
<i>Microtrachelizus montrouzieri</i>	0000010001	1111000100	0001111001	1111000011	0001110110	11111120

TABLE 1. — Continuation.

	1	1	2	3	4	5
	1	1	1	1	1	1
<i>Microtrachelizus occultus</i>	0000020001	1211000020	0001110002	0110000211	1101110110	1111120
<i>Microtrachelizus pahanganus</i>	0000010001	1211001101	0001111000	0110000??1	1101110110	1111110
<i>Microtrachelizus plenicosatus</i>	0000010?01	1211001101	0001111000	01?0000??1	1101?1??10	???????
<i>Microtrachelizus poggi</i>	0000020001	0211000101	0001111002	0110000111	1101110110	1111120
<i>Microtrachelizus pubescens</i>	0000010001	10110001?1	00?1110003	0?20000??1	110?1101??	1111110
<i>Microtrachelizus queenslandicus</i>	0000020001	1111000100	0001111002	1110000??0	0001110111	1111120
<i>Microtrachelizus rectestriatus</i>	0000010001	1211000101	0001111002	0110000111	1101110110	1111110
<i>Microtrachelizus rudis</i>	0000010001	1211001001	0001110002	0110200111	1101110110	1111121
<i>Microtrachelizus semistriatus</i>	0000020001	12110001?1	00?1111000	0?10000??1	110?1101??	11111??
<i>Microtrachelizus siamensis</i>	0000010001	1211001101	0011111000	0110000111	1100010110	11111?0
<i>Microtrachelizus silvicola</i>	0000020001	0211000101	0101110000	0110100??1	1100010110	1111110
<i>Microtrachelizus sirambeicus</i>	0000010?01	1211001101	0001111002	01?0200??1	1100?1??10	???????
<i>Microtrachelizus tabaci</i>	0000010001	1211000101	0001111002	011000?111	1101110110	1111120
<i>Microtrachelizus targionii</i>	0000020?01	1211000100	0001111002	01?0000??1	1101110?10	???????
<i>Microtrachelizus thai</i>	0000010?01	0211001101	0001111002	01?0000111	1101?1??10	???????
<i>Microtrachelizus weigeli</i>	0000020001	12110000?1	00?1110002	0111000110	010?110110	1111100
<i>Neohigonius</i>	1000110011	2211000101	0001110000	0220000210	0000011110	1111100
<i>Parapisthius attritus</i>	0000020?01	1211000101	0001111010	01?1001011	1101?1??10	???????
<i>Parapisthius brevitibia</i>	0000020001	1211000021	00011110?2	0110001111	1101110110	1111110
<i>Parapisthius incisus</i>	0000010?00	0111000011	0001111012	01?1001111	1101?1??10	???????
<i>Parapisthius intermedius</i>	0000010?00	0111000011	0001111010	01?0001111	1101?1??10	???????
<i>Parapisthius paulus</i>	0000010000	1211000121	0011111010	0110001111	1101110110	1111110
<i>Parapisthius suturalis</i> n. comb.	0000010?01	0211000??1	0001111012	0?20001???	?10??1??10	???????
<i>Pseudohigonius</i>	0000020001	12110101?1	00?1110000	0?20000??1	110?1101??	1111110

distribution (Mk +  $\Gamma$ ) to incorporate unequal rates among characters. For each model, I performed a Bayesian analysis. Two simulated independent runs were made, starting from different random trees. Each run comprised four chains (one cold and three heated) and was sampled every 1000 generations. The number of generations was implemented until average standard deviation of split frequencies between the two independent runs approached to zero. The total number of generations was  $5.10^6$ . The first 10% of generations from each run were discarded as burn in. This burn in was assessed by visual examination of the graphs generated by the software Tracer 1.5 (Rambaut & Drummond 2009). Then, I obtained the harmonic mean of the likelihoods of the post-burn in trees for each analysis ("sump" command in MrBayes). I calculated the Bayes factor ( $B_{10}$ ), which summarises the evidence provided by a data in favor of one scientific theory, represented by a statistical model, as opposed to another (Kass & Raftery 1995). In our case,  $B_{10}$  is the ratio of the marginal likelihoods of the two

models, harmonic means being estimators of the marginal likelihoods. In the present case, harmonic mean of (Mk +  $\Gamma$ ) = -1204.31 and harmonic mean of Mk = -1247.01. Then, by taking the difference between the harmonic mean of the likelihood from the posterior output of each of the models, I got  $\log(B_{10}) = 10^{-1204.31 - (-1247.01)} = 5.10^{42}$ . Then,  $B_{10} = 42.7$ .  $100 > B_{10} > 10$ , so we can consider that there is strong evidence (Kass & Raftery 1995) for a better fitting of the model (Mk +  $\Gamma$ ) and then it is chosen here to estimate phylogeny. This model is applicable for estimating a phylogeny with discrete variable morphological characters and was used in recent works (Wiens *et al.* 2005; Chamorro & Holzenthal 2011).

#### ABBREVIATIONS

ANIC	Australian National Insect Collection, Canberra (Dr Rolf Oberprieler);
BPBM	Bernice P. Bishop Museum, Honolulu (Dr Shepherd Myers);
coll. AM	collection Antoine Mantilleri, Paris;

coll. PH	collection Peter Hlavac, Košice;
coll. TT	collection Thomas Théry, Orléans;
DEI	Deutsche Entomologisches Institut, München- berg (Dr Lothar Zerche);
HNHM	Hungarian Natural History Museum, Bu- dapest (Dr Otto Merkl);
IRSNB	Institut royal des Sciences naturelles de Bel- gique, Brussels (Drs Patrick Grootaert, Pol Limbourg, Jacques Goossens);
MHNG	Muséum d'Histoire naturelle, Geneva (Dr Giulio Cuccodoro);
MNHN	Muséum national d'Histoire naturelle, Paris;
MNHUB	Museum für Naturkunde der Humboldt- Universität, Berlin (Dr Johannes Frisch);
MRAC	Musée royal de l'Afrique centrale, Tervuren (Dr Marc De Meyer);
MSNG	Museo Civico di Storia Naturale "Giacomo Doria", Genova (Dr Roberto Poggi);
MZB	Museum Zoologicum Bogoriense, Bogor (Dr Yayuk R. Suhardjono);
MZPW	Museum Zoologicum Polonicum, Warszawa (Dr Wioletta Tomaszewska);
MZUF	Museo di Storia Naturale, Sezione di Zoologia "La Specola", Università di Firenze (Dr Luca Bartolozzi);
NHMUK	The Natural History Museum, London (Dr Maxwell Barclay);
NME	Naturkundemuseum Erfurt (Dr Matthias Hartmann);
NMPC	National Museum (Natural History), Prague (Dr Jiří Hájek);
QMB	Queensland Museum, Brisbane (Dr Christine Lambkin);
RMNH	Nationaal Natuurhistorische Museum, Leiden (Dr Ben Brügge);
SAMA	South Australian Museum, Adelaide (Drs Jan Forrest and Peter Hudson);
SMTD	Staatliches Museum für Tierkunde, Dresden (Dr Olaf Jäger);
ZMUC	Zoological Museum, University of Copen- hagen (Dr Alexey Solodovnikov).

In the text, acronyms MNHN EC refer to inventory numbers of type specimens of Coleoptera preserved in MNHN collection. Access to data and pictures for these specimens is possible through the following link: <http://coldb.mnhn.fr>.

## SYSTEMATICS

Generic placement of the different species follows the results of the phylogenetic analysis. For each genus, species are listed in alphabetical order.

## Family BRENTIDAE Billberg, 1820 Subfamily CYPHAGOGINAE Kolbe, 1892

### Tribe HOPLOPISTHIINI Senna & Calabresi, 1919

Hoplopisthi Senna & Calabresi, 1919: 63. — Type genus: *Hoplopisthius* Senna, 1892: 451.

Microtrachelizina Zimmerman, 1994: 182, n. syn. — Type genus: *Microtrachelizus* Senna, 1893a: 315.

DIAGNOSIS. — Small to medium-sized brentids (2.0–12.5 mm), reddish brown. Antennomere 11 acuminate at apex, never rounded; venter of meso- and metathorax with a small projection on either side under antennal base; tibial spur formula: 1, 2, 2; hindwings (Fig. 23J, 25H) with only one primary anal vein; sternite VII latero-apically with two depressions (except in *Microtrachelizus enigmaticus* Mantillieri, 2007); parameres strongly reduced, most of the time filiform; styli always reduced.

### REMARKS

In its present acception, Hoplopisthiini includes 10 genera and is distributed in the wet intertropical Old World, from western Africa to New Caledonia and Fiji Islands.

The biology of Hoplopisthiini is still very poorly known. In the few existing observations, adults oviposit in tunnels of wood boring beetles: larvae of *Hoplopisthius* (*Carcinopisthius*) *oberthueri* Senna, 1893 live in tunnels connected with brood-tunnels of Platypodinae Shuckard, 1840 (Curculionidae Latreille, 1802); those of *Microtrachelizus beneficus* Kleine, 1925 use tunnels of *Hoplocerambyx spinicornis* Newman, 1842, where they probably feed on sap and saproxylic fungi (Beeson 1925, 1941). Other species, such as *Higonius cilo* Lewis, 1883, seem to be subcorticolous (Lewis 1883; Senna 1893a).

Host plants are quite diverse and belong to numerous botanic families, even for a given species (see Sforzi & Bartolozzi 2004).

Hoplopisthiini usually present weak sexual dimorphism. The most obvious character, distinct in all species, is the shape of meso- and metatibial spurs. In males, the inner spur is modified, enlarged, and sometimes almost bilobed; in females, the two spurs are similar, acute. The pronotum is longer in female than in male, and sternites III–IV of females are more convex than in males, where they are often depressed.

In few groups of Hoplopisthiini, sexual dimorphism may affect other body parts. In *Hoplopisthius* (*Hoplopisthius*) and *Hoplopisthius* (*Carcinopisthius*), females present a whitish pubescent area on upper side of head; males are glabrous. In *H. (C.) oberthueri*, elytral interstria 7 is abruptly interrupted at the apex, forming a tooth in females, but extends behind on the external border of elytra, not

forming a tooth in males (Mantilleri 2010a). Apex of elytra may also be different between sexes. In *H. (C.) fruhstorferi* (Kolbe, 1892), but particularly in *H. (Pseudotaphroderes) kolbei* Senna, 1893, and *H. (P.) loriae* (Senna & Calabresi, 1919), females present a large tooth on inner side of apical “forceps” of elytra; this tooth is missing or strongly reduced in males.

#### KEY TO THE GENERA OF THE TRIBE HOPLOPISTHIINI SENNA & CALABRESI, 1919

1. Micropterous, humeral callus indistinct (Fig. 9A) ..... *Howeius* Mantilleri, 2011  
— Hindwings functional, humeral callus distinct ..... 2
2. Head flattened; pronotum less than 0.5 as long as head + metarostrum + mesorostrum together; pronotum pyriform; femora flattened; protibia squat, much shorter than the femora ..... 3  
— All these characters not present together ..... 4
3. Apex of elytra strongly appendiculated, the first interstria strongly projecting rearward or apex of elytra in shape of “forceps” ..... *Hoplopisthius* Senna, 1892  
— Apex of elytra not strongly appendiculated, but only deeply notched .....  
..... *Entomopisthius* Muizon, 1959
4. Lateral grooves of metarostrum missing; head flattened with two lateral hairy areas reaching the mesorostrum ..... *Aneorhachis* Kleine, 1923  
— All these characters not present together ..... 5
5. Apex of elytra notched, the first elytral interstria thickened at the apex .....  
..... *Parapisthius* Kleine, 1935  
— Apex of elytra sometimes notched, the first elytral interstria not thickened at the apex ..... 6
6. Pronotum with deep vermiculate punctures ..... *Pseudohigonius* Damoiseau, 1987  
— Pronotum smooth or punctate, but without vermiculate punctures ..... 7
7. Pronotum much longer than head + metarostrum + mesorostrum together; external apical border of elytra formed by interstria 8 ..... *Neohigonius* Goossens, 2005  
— These two characters not present together ..... 8
8. Head bilobed, the cephalic lobes more or less hairy; head with only one basal notch .....  
..... *Higonius* Lewis, 1883  
— All these characters not present together ..... 9
9. Gonopods IX without sclerified lateral tooth (Fig. 3I); pronotum lengthened, always more than 0.75× longer than head + metarostrum + mesorostrum .....  
..... *Araiorrhinus* Senna, 1893  
— Gonopods IX with a sclerified lateral tooth ..... 10
10. Mesorostrum elevated; pronotum pyriformous; external apical border of elytra angular .....  
..... *Anaraiorrhinus* Damoiseau, 1987 (*pars*)  
— All these characters not present together ..... 11



11. Head without basal notch; pronotum larger at base than at apex; prothorax not foveate in front of procoxae; prosternellum not distinct; elytra strongly concave at base, humeral calli protruding; interstria 2 distinct only at apex; gonocoxites with single very large apical tooth; tegmen with parameres not fused ..... *Anaraiorrhinus* Damoiseau, 1987 (*pars*)  
 — All these characters not present together ..... *Microtrachelizus* Senna, 1893

Genus *Anaraiorrhinus*  
 Damoiseau, 1987

*Anaraiorrhinus* Damoiseau, 1987: 69.

TYPE SPECIES. — *Anaraiorrhinus conquisitus* (Kleine, 1925), by original designation (Damoiseau 1987).

DISTRIBUTION. — Southeast Asia (Malaysia), New Guinea.

REMARKS

Until recently, this genus was very doubtfully considered as a member of Atopobrentini (Sforzi & Bartolozzi 2004). The results of the phylogenetic analysis show that, indeed, it should be included in Microtrachelizini. But it is very probably not monophyletic and it is impossible to give a general description for this genus. Apex of gonopodes IX of *A. elongatus* Goossens, 2006 is very characteristic (Fig. 1G), with a large lateral tooth and apical styli. Male of *A. conquisitus* is still unknown.

KEY TO THE SPECIES OF THE GENUS *ANARAIORRHINUS* DAMOISEAU, 1987

1. Mesorostrum elevated (Fig. 1A); pronotum pyriform and punctate on the fore part; external apical border of elytra not rounded ..... *A. conquisitus* (Kleine, 1925)  
 — Mesorostrum not elevated (Fig. 1C); pronotum not pyriform, smooth; external apical border of elytra rounded ..... *A. elongatus* Goossens, 2006

*Anaraiorrhinus conquisitus* (Kleine, 1925)  
 (Figs 1A, B; 7A)

*Anaraiorrhinus conquisitus* Kleine, 1925: 138.

*Anaraiorrhinus conquisitus* – Damoiseau 1987: 69.

TYPE MATERIAL. — Perak, Doherty, ♀ holotype (NHMUK).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — See map (Fig. 5). The occurrence in India (Sforzi & Bartolozzi 2004: 422) has not been verified.

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 6.7 mm; width across humeral calli: 0.95 mm. Reddish brown with a darker juxtasutural area on elytra. Habitus: Figure 7A.

Head broader than long, with basal notch. Vertex and frons weakly grooved, the groove deeper on metarostrum but not reaching mesorostrum. Eyes

large, not strongly bulging; temples short, protruding behind eyes. Metarostrum without lateral grooves; mesorostrum elevated (Fig. 1A), without groove; pronotum smooth, massive, 0.52× as long as head + metarostrum + mesorostrum. Antenna weakly hairy; antennal segment 2 cylindrical; 3 conical, lengthened; 4-8 cylindrical almost as long as broad; 11 1.8× longer than 10. Venter of head, metarostrum and mesorostrum grooved.

Pronotum strongly convex, much larger at base than at apex (base of pronotum/apex of pronotum: 1.50), punctate at apex, with a deep median groove at base, this group vanishing forward. Prothorax without fovea in front of not strongly protruding procoxae. Prosternellum not distinct. Protibiae short, squat, 0.38× as long as profemora. Calcar at apex of protibia as long as first protarsomere. Metasternum longitudinally grooved, laterally carinate. Elytra hardly concave at base. Interstria 2 present from base to apex; 5, 6 and 7 anteriorly fused to form a common humeral callus; interstria 8 beginning just



before half of elytra; external apical border formed by interstria 9. Apex of elytra flattened and forming a right angle. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV in female (Fig. 1B) slightly grooved longitudinally, laterally carinate, apical declivity steep; sternites V-VI with three basal notches in middle; VII in middle with large basal notch and apical fovea (Fig. 1B). Tergite VIII of female denticulate at apex.

Male unknown.

*Anaraiorrhinus elongatus* Goossens, 2006  
(Figs 1C-G; 7B)

*Anaraiorrhinus elongatus* Goossens, 2006: 59.

TYPE MATERIAL. — Canopy Mission P.N.G., Madang Province, Baiteta, 11.IV.1996, light, AR6, leg. Olivier Missa, ♀ holotype (IRSNB); same data, but 02.VI.1993, light, M1, leg. Olivier Missa, paratype (IRSNB); same data, but 11.V.1993, light, M1, leg. Olivier Missa, paratype (IRSNB); same data, but 11.V.1996, light, AR22, leg. Olivier Missa, paratype (IRSNB); same data, but 08.VI.1993, light, M1, leg. Olivier Missa, paratype (IRSNB).

MATERIAL EXAMINED. — **Papua New Guinea.** Holotype. — New Guinea, NE, Wau, Morobe Dist., 1050 m, 19.IX.1961, J. Sedlacek, 1 ♂ (BPBM).

DISTRIBUTION. — See map (Fig. 5).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.2-5.8 mm; width across humeral calli: 0.8-0.9 mm. Reddish brown with a darker postmedian blotch on elytra. Habitus: Figure 7B.

Head broader than long, without basal notch. Vertex and frons smooth; metarostrum grooved, this groove reaching base of mesorostrum. Eyes large; temples short, not protruding behind the eyes. Metarostrum with lateral grooves; mesorostrum not elevated (Fig. 1C); prorostrum smooth, not massive, 0.48-0.64× as long as head + metarostrum + mesorostrum (prorostrum much longer in female than in male). Antennal segment 2 as long as broad, cylindrical; 3 conical; 4-8 hardly broader than long; 9-10 flattened; 11 1.6-1.7×

longer than 10. Venter of head, metarostrum and mesorostrum grooved.

Pronotum not strongly convex, larger at base than at apex (base of pronotum/apex of pronotum: 1.47-1.52), not punctate, with a superficial median groove running from base to apex. Prothorax not foveate in front of not protruding procoxae; prosternellum not distinct. Protibiae 0.62-0.67× as long as profemora. Calcar at apex of protibia as long as first protarsomere. Metasternum hardly grooved in female, groove stronger in male; Metasternum not laterally carinate. Elytra strongly concave at base, humeral calli protruding. Interstria 2 distinct only at apex; 5, 6 and 7 anteriorly fused; interstria 8 distinct only after half of elytra; external apical border formed by interstria 9. Apex of elytra rimmed and rounded, not flattened. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV convex in female (Fig. 1D), slightly depressed in male, not grooved nor laterally carinate, apical declivity not steep; sternites V-VI with two weak paramedian notches; VII (Fig. 1D, E) in middle with small basal notch and apical fovea. Tergite VIII of female (Fig. 1F) irregularly denticulate at apex. Gonocoxites (Fig. 1G) with a very large apical tooth; styli of gonocoxites strongly reduced, apical. Tegmen with parameres short, reduced, filiform, not fused.

Genus *Aneorhachis* Kleine, 1923

*Aneorhachis* Kleine, 1923a: 135.

*Ipsopisthius* Kabakov, 2001: 215. Syn. Mantilleri 2011a: 441. — Type species: *Ipsopisthius hirtus* Kabakov, 2001, by original designation

TYPE SPECIES. — *Aneorhachis astricta* Kleine, 1923, by original designation.

DISTRIBUTION. — Southeast Asia, Indonesia, New Guinea, Fiji Islands.

REMARKS

This monophyletic group was recently reviewed (Mantilleri 2011a) and an identification key was proposed. One species was described from Sumatra (Mantilleri 2011b) since the publication of this

revision. The study of additional material from Misool (Indonesia) revealed the occurrence of *A. papuana* Mantilleri, 2011 on this island: Indonesia, Prov. Raja Ampat, Misool SW, distr. Misool Utara, Aduwey (Adua) vill., c. 2.5 km NNW, valley of river Hakau, 01°58'46"S, 129°54'37"E, 27.III.2009, primeval lowland forest, leg. D. Telnov, 3 ex. (2 in MZUF, 1 in MNHN).

### Genus *Araiorrhinus* Senna, 1893

*Araiorrhinus* Senna, 1893a: 325.

TYPE SPECIES. — *Araiorrhinus longirostris* Senna, 1893, by subsequent designation (Kleine 1938).

DISTRIBUTION. — Southeast Asia, Indonesia, New Guinea, Australia.

DIAGNOSIS. — Head strongly broader than long. Pronotum lengthened, more than 0.75× longer than head + metarostrum + mesorostrum. Lateral grooves of metarostrum short but distinct. Antennal segment 11 strongly acuminate at apex (Figs 2E; 3B). Calcar at apex of protibia shorter than first protarsomere (Fig. 2F). Metasternum laterally not carinate. Elytra glabrous. External apical border of elytra formed by interstria 9. Tergite VIII of female regularly denticulate at apex (Fig. 3F). Gonocoxites without lateral tooth; styli apical (Fig. 3I). Tegmen with filiform parameres.

### REMARKS

An identification key was given for this genus by Damoiseau (1987) but it does not include the most recently described species, and one species cited in the key is actually a member of the genus *Anaraiorrhinus*. For these reasons, a new identification key to species of this genus is necessary and proposed below.

### KEY TO THE SPECIES OF THE GENUS *ARAIORRHINUS* SENNA, 1893

1. Pronotum with a longitudinal groove, sometimes weaker at apex ..... 2
- Pronotum without longitudinal groove, or groove only distinct at base ..... 8
2. Elytral interstria 2 distinct at base and apex but strongly reduced in the median part of elytra ..... 3
- Elytral interstria 2 distinct from base to apex, not strongly reduced in the median part ... 5
3. Median basal notch of head deep; temples not tuberculate; longitudinal groove of pronotum reaching neither the base nor the apex ..... *A. lieftincki* Kleine, 1939
- Median basal notch of head weak ..... 4
4. Longitudinal groove of pronotum deep from base to apex; pronotum not very long (Fig. 2D) ..... *A. beesoni* Kleine, 1925
- Longitudinal groove of pronotum much weaker at apex; pronotum very long (Fig. 4E) ..... *A. timoriensis* Damoiseau, 1987
5. Head with a longitudinal groove ..... *A. howittii* (Pascoe, 1872)
- Head without longitudinal groove ..... 6
6. Elytral striae very weak on sides; pronotum very long (Fig. 8A); sternite VII of male tomentous at apex ..... *A. recurvicosta* Damoiseau, 1966
- Elytral striae well distinct, even on sides ..... 7
7. Longitudinal groove of pronotum weaker at apex than at base (Fig. 4A) ..... *A. levisulcatus* Damoiseau, 1987
- Longitudinal groove of pronotum well marked from base to apex (Fig. 4C) ..... *A. sondaicus* Senna, 1893
8. Profemora with a tooth on the underside (Fig. 2B) ..... *A. armatus* Damoiseau, 1987
- Profemora without tooth on the underside ..... 9

9. Elytra completely smooth on the sides ..... *A. zimmermani* Mantilleri, 2011  
 — Elytra not completely smooth on the sides, interstriae more or less distinct .....  
 ..... *A. longirostris* Senna, 1893

*Araiorrhinus armatus* Damoiseau, 1987  
 (Figs 2A-C; 7C)

*Araiorrhinus armatus* Damoiseau, 1987: 68.

TYPE MATERIAL. — Humboldt Bay, N. Guinea, Doherty leg. 1898, ♂ holotype (MZUF).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — New Guinea. See map (Fig. 5).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 6.8 mm; width across humeral calli: 1.1 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 7C.

Head (Fig. 2A) very convex, finely punctate, with basal median notch. Vertex and frons smooth. Temples almost indistinct, not protruding behind eyes. Metarostrum foveate; mesorostrum grooved; prorostrum smooth, 1.1× longer than head + metarostrum + mesorostrum. Venter of head and metarostrum grooved, tomentous.

Pronotum (Fig. 2A) shiny, with minute punctures, very weakly grooved only at base. Prothorax foveate in front of procoxae; prosternellum not distinct. Profemora (Fig. 2B) with strong tooth on underside; meso- and metafemora with blunt tooth on underside. Protibiae 0.74× as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Metafemora pedunculate. Metasternum smooth, with a large longitudinal groove. Elytra concave at base; interstria 2 distinct at base and apex, strongly reduced in the middle; interstria 4 distinct from base to apical declivity; 5, 6 and 7 anteriorly fused to form a common humeral callus. Apex of elytra rounded, not rimmed.

Sternites III-IV depressed in male; V-VI weakly notched at base; VII without basal notch, apex with large fovea (Fig. 2C).

Female unknown.

*Araiorrhinus beesoni* Kleine, 1925  
 (Figs 2D-I; 7D)

*Araiorrhinus beesoni* Kleine, 1925: 138.

TYPE MATERIAL. — Mohnyin R., Katha Burma, 25.V.1919, C. F. C. Beeson, ♂ holotype (NHMUK).

MATERIAL EXAMINED. — **India.** Côte de Malabar, Mahé, M. Maindron, VII.1901, 1 ex. (MNHN). — Assam, Bhalukpong, 27°02'N, 92°35'E, 150 m, L. Dembicky leg., 26.V-03.VI.2006, 1 ex. (NHMUK).

**Laos.** Laos C., Khammouan prov., Nakai env., 17°43'N, 105°09'E, 22.V-8.VI.2001, alt. 500-800 m, E. Jendek & O. Sausa leg., 1 ex. (MNHN).

**Myanmar.** Holotype.

**Thailand.** Prae, Siam, 3 ex. (ZMUC). — Chiang Mai, Doi Chiang Dao, 1150 m, à la lumière, 24-25.VI.1986, leg. P. Schwendiger, 1 ex. (MHNG). — Chiang Mai, Doi Kham, 390 m, 18°45.647'N, 98°55.400'E, 18-22.V.2009, leg. Scheidt, 2 ex. (NME, MNHN).

DISTRIBUTION. — India, Laos, Myanmar, Thailand. The occurrence in Vietnam (Sforzi & Bartolozzi 2004: 626) has not been verified but is very probable. See map (Fig. 5).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.9-7.0 mm; width across humeral calli: 0.8-1.1 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 7D.

Head (Fig. 2D) quite convex, with basal median notch. Vertex and frons not grooved. Eyes bulging, temples very short, protruding behind eyes. Metarostrum foveate; mesorostrum grooved; prorostrum smooth, 0.75-0.95× as long as head + metarostrum + mesorostrum. Antennal segment 3 conical, slightly broader than long; 4-8 cylindrical, broader than long; 9-10 as long as broad, 11 1.8-2.2× longer than 10 (Fig. 2E). Venter of head, metarostrum and mesorostrum grooved, tomentous.

Pronotum (Fig. 2D) shiny, smooth, longitudinally deeply grooved. Prothorax not foveate in front of procoxae; prosternellum not distinct. Protibiae 0.69-0.75× as long as profemora. Calcar at apex of protibia shorter than first protarsomere (Fig. 2F).

Metafemora pedunculate. Metasternum not carinate, smooth, with longitudinal large groove. Elytra concave at base. Interstria 2 present from base to apex but strongly reduced in the middle; 4 present from base to apical declivity; 5, 6 and 7 anteriorly fused to form a common humeral callus; 8 distinct from end of first half to apex. Apex of elytra rounded, rimmed.

Sternites III-IV more depressed in male than in female; V-VI without basal notch; VII without basal notch nor apical fovea; apex of sternite VII very tomentous (Fig. 2G). Tegmen (Fig. 2H) with parameres short, not fused. Spiculum gastrale: Figure 2I.

*Araiorrhinus howittii* (Pascoe, 1872)  
(Figs 3; 7H)

*Trachelizus howittii* Pascoe, 1872: 320.

*Microtrachelizus howitti* [sic] – Senna 1893a: 318.

*Araiorrhinus howitti* [sic] – Damoiseau 1966a: 13.

*Araiorrhinus australicus* Senna, 1893a: 327. Syn. Damoiseau 1987: 66.

TYPE MATERIAL. — *Araiorrhinus howittii*: Melbourne, ♂ holotype (NHMUK).

*Araiorrhinus australicus*: N. Gallia, Mniszech, ♂ lectotype (MZUF).

MATERIAL EXAMINED. — See Mantilleri (2011c). The lectotype of *A. australicus* was also examined and the synonymy proposed by Damoiseau (1987) is confirmed.

DISTRIBUTION. — Australia (Queensland, New South Wales, Lord Howe Island). See map (Fig. 5). This species is also cited from Norfolk Island by Zimmerman (1994).

# REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.2–6.5 mm; width across humeral calli: 0.6–0.9 mm. Reddish brown with a darker postmedian blotch on elytra. Habitus: Figure 7H.

Head (Fig. 3A) quite convex, punctate, with basal median notch. Vertex and frons grooved. Eyes weakly bulging, temples short but distinct, not protruding behind eyes. Metarostrum foveate and grooved, this groove reaching the base of prorostrum. Lateral

grooves of metarostrum weak, slightly tomentous. Female: prorostrum  $0.98\text{--}1.41\times$  as long as head + metarostrum + mesorostrum; male: prorostrum  $0.85\text{--}0.88\times$  as long as head + metarostrum + mesorostrum. Antennal segment 3 conical, as long as or slightly longer than broad; 4–8 cylindrical, slightly broader than long; 9–10 as long as broad, 11  $1.8\text{--}2.0\times$  longer than 10 (Fig. 3B). Venter of head, metarostrum and mesorostrum grooved.

Pronotum (Fig. 3A) cylindrical, shiny, sparsely punctate, longitudinally grooved. Prothorax slightly depressed, foveate in front of procoxae; prosternellum not distinct. Protibiae thin,  $0.71\text{--}0.84\times$  as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Metafemora pedunculate. Metasternum slightly depressed and longitudinally grooved, with few large punctures lateral. Elytra concave at base. Interstria 2 present from base to apex but narrower in the middle; 4 present from base to apical declivity; 5, 6, 7 and 8 anteriorly fused to form a common humeral callus. Apex of elytra rounded, hardly rimmed.

Sternites III-IV weakly depressed in female (Fig. 3C), the depression deeper in male, sometimes with few large latero-apical punctures; V-VI without basal notch; VII without basal notch. Sternite VII of female with large apical fovea (Fig. 3C); sternite VII of male without apical fovea. Epipleurites VIII: Figure 3G. Spermatheca: Figure 3H. Gonocoxites: Figure 3I. Tegmen (Fig. 3E) with parameres short, fused at base.

*Araiorrhinus levisulcatus* Damoiseau, 1987  
(Figs 4A, B; 7G)

*Araiorrhinus levisulcatus* Damoiseau, 1987: 64.

TYPE MATERIAL. — Perak, Doherty, ♀ holotype (NHMUK).

MATERIAL EXAMINED. — **Brunei**. Temburong dist., ridge NE Kuala Belalong, 300 m, 125 W m. v. light, X.1992, J. H. Martin, 1 ♀ (NHMUK).

**Malaysia**. Holotype. — North Borneo, Tawau Residency, Kalabakan, 14–16.XI.1958, T. C. Maa, light trap, 1 ♂ (BPBM). — Hulu Perak, Bangunan Camp, c/o Kampung Semelur (E shore lake Tasek-Temengor),  $5^{\circ}30'18''\text{N}$ ,  $101^{\circ}24'16''\text{E}$ , 230 m, 29.VI–4.VII.2008, 1 ex. (MZUF).

DISTRIBUTION. — Brunei, Malaysia. See map (Fig. 5)

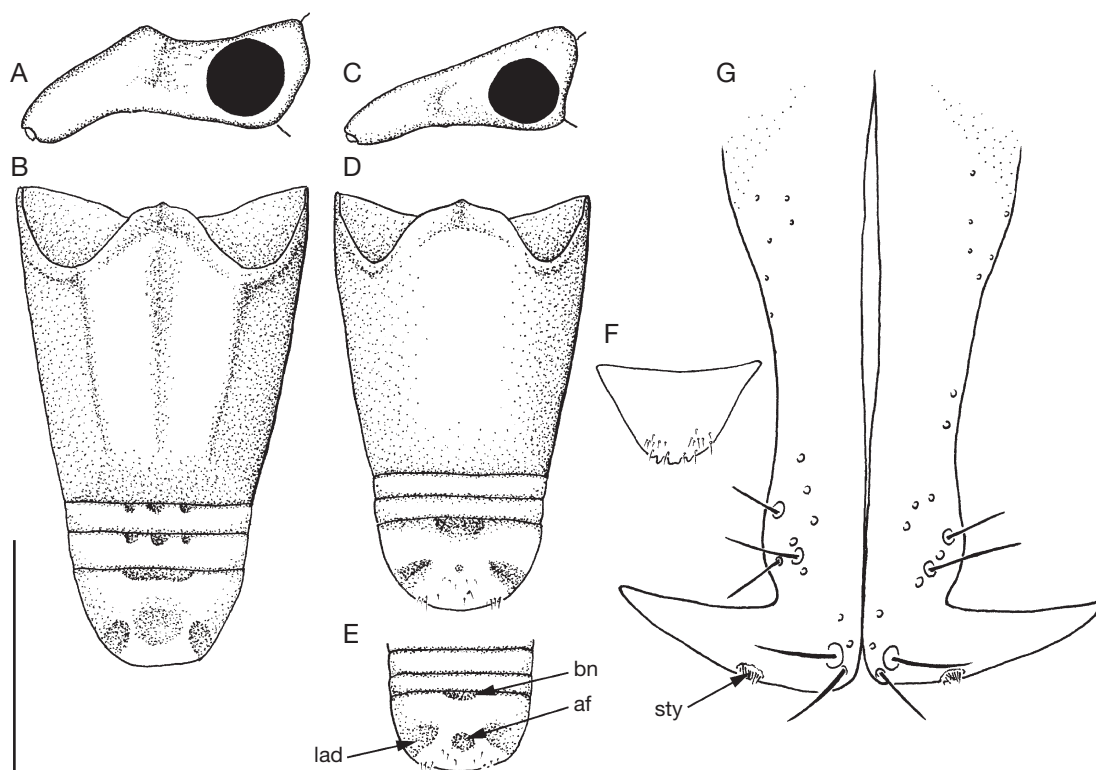


FIG. 1. — **A, B**, *Anaraiorrhinus conquisitus* (Kleine, 1925), female, head (**A**) and abdomen (**B**); **C-G**, *A. elongatus* Goossens, 2005; **C**, head of male; **D**, abdomen of female; **E**, sternites V-VII of male (**af**, apical fovea; **bn**, basal notch; **lad**, latero-apical depression); **F**, tergite VIII of female; **G**, gonocoxites (**sty**, stylus). Scale bar: A-F, 1 mm; G, 0.18 mm.

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.9–6.8 mm; width across humeral calli: 0.7–0.9 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 7G.

Head (Fig. 4A) convex, smooth, with basal median notch. Vertex and frons not grooved. Temples not distinct. Metarostrum foveate; mesorostrum and prorostrum smooth. Prorostrum 0.88–1.12× longer than head + metarostrum + mesorostrum. Antennal segment 3 conical; 4–8 cylindrical, broader than long; 9–10 cylindrical as long as broad; 11 1.7–2.0× longer than 10. Venter of head and metarostrum grooved, tomentous.

Pronotum (Fig. 4A) cylindrical, shiny, very sparsely and finely punctate, grooved, the groove more shallow at apex than at base. Prothorax foveate in front of procoxae; prosternellum not distinct. Protibiae

0.75–0.80× as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Metafemora pedunculate. Metasternum not grooved. Elytra concave at base. Interstria 2 distinct from base to apex but narrower in the middle; 4 present from base to apical declivity; 5, 6, 7 and 8 anteriorly fused to form a common humeral callus. Apex of elytra rounded, slightly rimmed.

Sternites III–IV convex, hardly depressed in the middle in female, depressed in male, not carinate; V–VI smooth; VII without basal notch and apical fovea (Fig. 4B). Apex strongly tomentous. Tegmen with parameres short, not fused.

*Araiorrhinus lieftincki* Kleine, 1939

*Araiorrhinus lieftincki* Kleine, 1939: 131.



TYPE MATERIAL. — S Sumatra, SW Lampongs, Mt Tang-gamoes, Giesting, 800 m, XI.1934, M. A. Lieftinck & L. J. Toxopeus, holotype (Buitenzorg Museum; not examined).

DISTRIBUTION. — Indonesia (Sumatra).

#### DESCRIPTION

Diagnostic characters are given in the identification key and were chosen from original description (Kleine 1939) and Damoiseau (1987).

Due to lack of described and observable characters, this species is not included in the phylogenetic analysis.

### *Araiorrhinus longirostris* Senna, 1893

*Araiorrhinus longirostris* Senna, 1893a: 326.

*Araiorrhinus exportatus* Senna, 1893a: 327. Syn. Mantilleri 2007a: 476.

TYPE MATERIAL. — *Araiorrhinus longirostris*: Sumatra, Serdang, ♀ holotype (RMNH).

*Araiorrhinus exportatus*: Sumatra, imp. con tabacco, Grouvelle, ♂ lectotype (RMNH) and 1 ♂ paralectotype (MZUF).

MATERIAL EXAMINED. — **Indonesia**. Holotype of *A. longirostris*. — Lectotype and paralectotype of *A. exportatus*. — Sulawesi SO, Kendari airport, 30 km W of Kendari, 11-14. II.1994, M. Strba & I. Jenis leg., 1 ex. (MNHN). — Sulawesi Utara, Dumoga Bone NP, at light, lower montane forest, 1140 m, III.1985, 1 ex. (NHMUK). — Sulawesi Tengah, nr Kolonodale, Gililana village, 1°55'S, 121°22'E, 7-8. II.1980, at light, M. L. D. Brendell, 1 ex. (MNHN). — Seram, Solea, VIII.1987, Malaise trap in forest, M. C. Day, 1 ex. (NHMUK).

**Malaysia**. Quop, W Sarawak, II-III.1914, G. E. Bryant, 1 ex. (NHMUK). — Malay Penin., Pahang, Lentang Reserve, 26.X.1926, M. L. Webber, 1 ex. (NHMUK). — Kelantan, Pergau Dam, 5°35'54"N, 101°43'50"E, 750 m, 4.VII.2008, L. Bartolozzi, G. Mazza, F. Cianferoni & F. Fabiano, 1 ex. (MZUF).

**Papua New Guinea**. NE New Guinea, Umboi I., c.8 km WNW Lab Lab, 300 m, light trap, 8-19.II.1967, G. A. Samuelson, 1 ex. (BPBM). — NE New Guinea, Lae, Didyman's Creek, 15 m, 30.IV.1963, J. & M. Sedlacek (MNHN). — New Guinea, NE, Baiyer River Sanctuary, 1-5.IX.1969, leg. Dr J. Balogh, 1 ex. (HNHM).

**Solomon Islands**. Honiara, 9.XII.1961, P. J. M. Greenslade, 1 ex. (NHMUK).

DISTRIBUTION. — Indonesia, Malaysia, Papua New Guinea, Solomon Islands. The occurrences in India and Philippines (Sforzi & Bartolozzi 2004: 627, 628) have not been verified. See map (Fig. 6).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.2-7.0 mm; width across humeral calli: 0.7-0.9 mm. Reddish brown. Habitus: Figure 7F.

Head convex, with basal median notch. Temples very short, slightly protruding behind eyes. Vertex and frons not grooved. Metarostrum foveate; mesorostrum slightly grooved; prorostrum smooth, very long (female: 1.90-2.05× longer than head + metarostrum + mesorostrum; male: 1.20-1.30× longer than head + metarostrum + mesorostrum). Antennal segment 3 conical, slightly longer than broad; 9-10 cylindrical; 11 1.7-2.1× longer than 10. Venter of head and metarostrum with a groove sometimes tomentous.

Pronotum cylindrical, shiny, with punctures hardly distinct; longitudinal groove present only at base. Prothorax foveate in front of procoxae; prosternellum not distinct. Metasternum convex, shiny, longitudinally grooved on rear part. Protibiae thin, 0.71-0.84× as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Elytra slightly concave at base. Interstria 2 distinct from base to apex; 5, 6 and 7 anteriorly fused to form a common humeral callus; 8 distinct only after the first half. Apex of elytra rounded, rimmed. Hindwings without basal sclerite.

Sternites III-IV not carinate, hardly depressed in female, weakly depressed in male; V-VI without basal notch; VII without basal notch, with apical fovea; apex tomentous or hairy. Tegmen with parameres not fused.

### *Araiorrhinus recurvicosta* Damoiseau, 1966 (Fig. 8A)

*Araiorrhinus recurvicosta* Damoiseau, 1966b: 423.

TYPE MATERIAL. — Tawi Tawi, Tarawakan, north of Batu Batu [Philippines], Noona Dan exp. 61-62, Malaise traps, 24.X.1961, ♂ holotype (ZMUC).

MATERIAL EXAMINED. — See type material above.



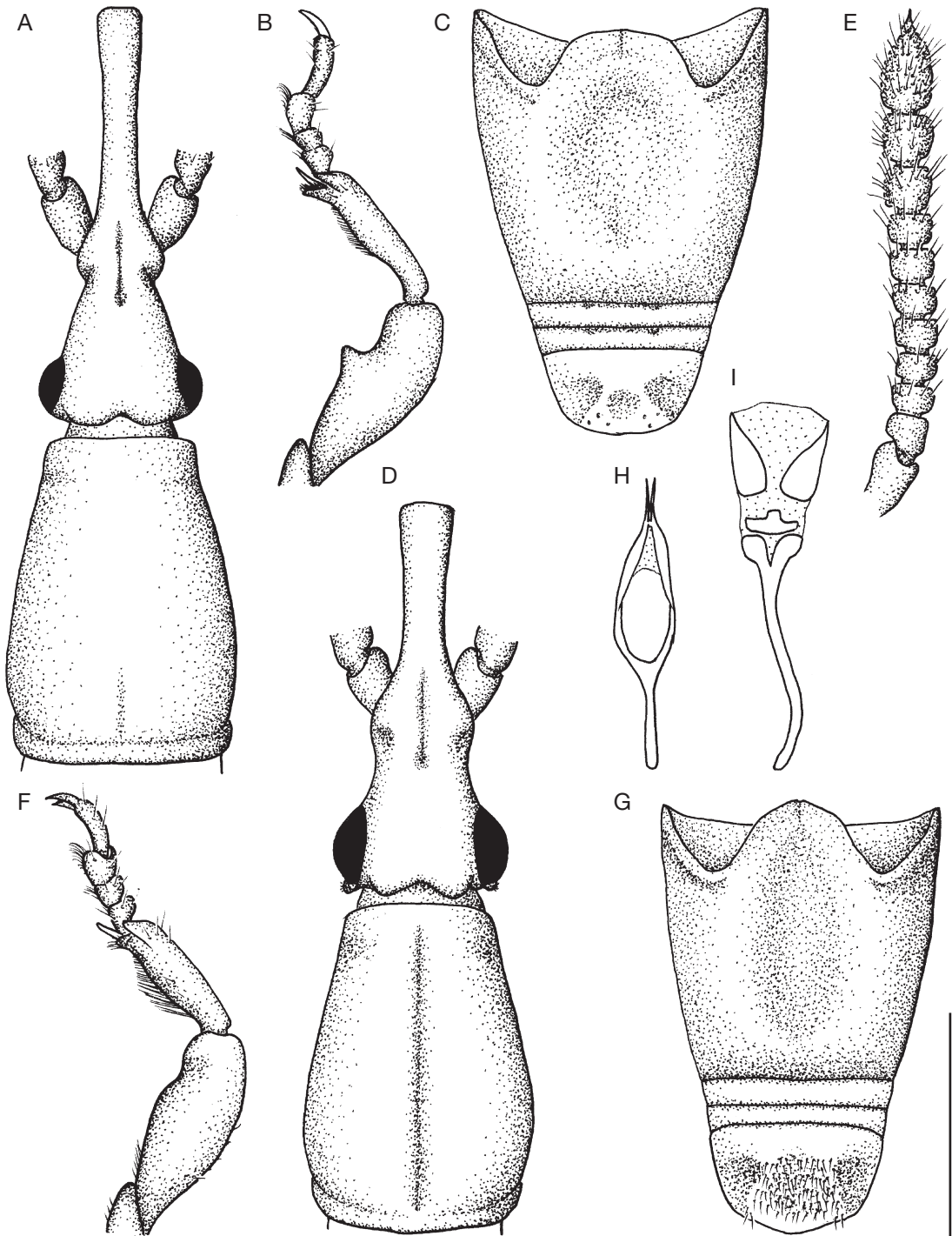


FIG. 2. — **A-C**, *Araiorrhinus armatus* Damoiseau, 1987; **A**, head and pronotum; **B**, foreleg; **C**, abdomen of male; **D-I**, *A. beelsoni* Kleine, 1925; **D**, head and pronotum; **E**, antenna; **F**, foreleg; **G**, abdomen of male; **H**, tegmen; **I**, spiculum gastrale. Scale bar: 1 mm.

DISTRIBUTION. — Philippines (Tawi Tawi). See map (Fig. 5).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.8 mm; width across humeral calli: 0.9 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 8A.

Head convex, with basal median notch. Temples very short, not protruding behind eyes. Vertex and frons not grooved. Metarostrum with small fovea; mesorostrum slightly grooved; prorostrum smooth, lengthened, 2.0× longer than head + metarostrum + mesorostrum. Antennal segment 3 conical, broader than long; 4–8 cylindrical, broader than long; 9–10 cylindrical as long as broad; 11 2.0× longer than 10. Venter of head and metarostrum grooved, tomentous.

Pronotum cylindrical, shiny, finely punctate, longitudinally grooved. Prothorax foveate in front of procoxae; prosternellum not distinct. Metasternum convex, shiny, longitudinally grooved. Protibiae 0.80× as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Elytra slightly concave at base. Interstria 2 distinct from base to apex, but reduced in the middle part; 5, 6, 7 and 8 anteriorly fused to form a common humeral callus. Apex of elytra rounded, hardly rimmed.

Sternites III–IV not carinate, depressed; V–VI without basal notch; VII without basal notch, without apical fovea; apex tomentous. Tegmen with parameres not fused.

Female unknown.

#### *Araiorrhinus sondaicus* Senna, 1893 (Figs 4C, D; 7E)

*Araiorrhinus sondaicus* Senna, 1893a: 329.

TYPE MATERIAL. — Sumatra, sul tobacco, Grouvelle, ♂ lectotype (MZUF) and 2 paralectotypes (RMNH and SMTD).

MATERIAL EXAMINED. — **India.** Assam, Patkai Mts, Doherty, 1 ex. (NHMUK).

**Indonesia.** ♂ lectotype. — SO Sumatra, Marang, 1890, W. Doherty, 1 ex. (MNHN); Sumatra, Marang, W. Doherty, 1 ex. (NHMUK). — Sumatra, Aceh-Selatan, Babahrot, 100 m, VII–VIII.1983, J. Klapperich, 1 ex. (MHNG).

**Laos.** Vientiane prov., Ban Van Eue, 15.XII.1965, native collectors, 1 ex. (BPBM).

**Malaysia.** Perak, Malacca, Doherty, 1 ex. (MNHN). — W Malaysia, Perak, road Tapah-Ringlet, 10 km S of Ringlet, 900 m, 14–19.IV.1999, leg. A. Ballerio, 1 ex. (MZUF). — Malay Penin., Selangor, Bukit Kutu, 3500 ft, 11.IX.1929, H. M. Pendlebury, 1 ex. (NHMUK).

**Thailand.** Fang, Tha Ton, 26.V.1997, lgt. M. Snizek, 1 ex. (MSNG). — Tak Province, Umphang District, Mae Chan/Mae Kong confluence, 27.IV–6.V.1988, 300 m, Thung Yai Wildlife Sanctuary, 15°30'N, 98°48'E, edge of Karen clearing, M. J. D. Brendell, 1 ex. (NHMUK). — Yala province, Bang Lang National Park, 6°04'N, 101°11'E, 18–20.X.1991, dead tree, O. Martin leg., 1 ex. (ZMUC). — Chiang Mai, Doi Chiang Dao, 1150 m, à la lumière, 24–25.VI.1986, leg. P. Schwendiger, 1 ex. (MHNG). — Chiangmai prov., Fang, 13.IV.1958, T. C. Maa, light trap, 1 ex. (BPBM).

DISTRIBUTION. — India, Indonesia, Laos, Malaysia, Thailand. See map (Fig. 6). The occurrence in Vietnam (Sforzi & Bartolozzi 2004: 628) has not been verified but is very probable.

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.1–6.6 mm; width across humeral calli: 0.7–0.9 mm. Reddish brown. Habitus: Figure 7E.

Head (Fig. 4C) strongly broader than long, with basal notch, not punctate. Temples very short sometimes very protruding behind eyes. Vertex and frons not grooved. Metarostrum foveate and grooved, this groove reaching the base of prorostrum. Proorostrum 0.83–1.13× as long as head + metarostrum + mesorostrum. Antennal segment 3 broader than long, conical; 4–8 broader than long, cylindrical; 9–10 hardly longer than broad; 11 1.7–2.15× longer than 10. Venter of head and metarostrum tomentous, longitudinal groove sometimes not distinct.

Pronotum (Fig. 4C) cylindrical, almost dull, longitudinally grooved, not or hardly punctate. Prothorax foveate in front of procoxae; prosternellum not distinct. Metasternum convex, lightly grooved, with quite strong punctures lateral. Protibiae 0.66–0.77× as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Femora of male hairy under the club. Elytra with interstria 2 present from base to apex; 4 distinct from base to apical declivity; 5, 6, 7 and 8 anteriorly fused to

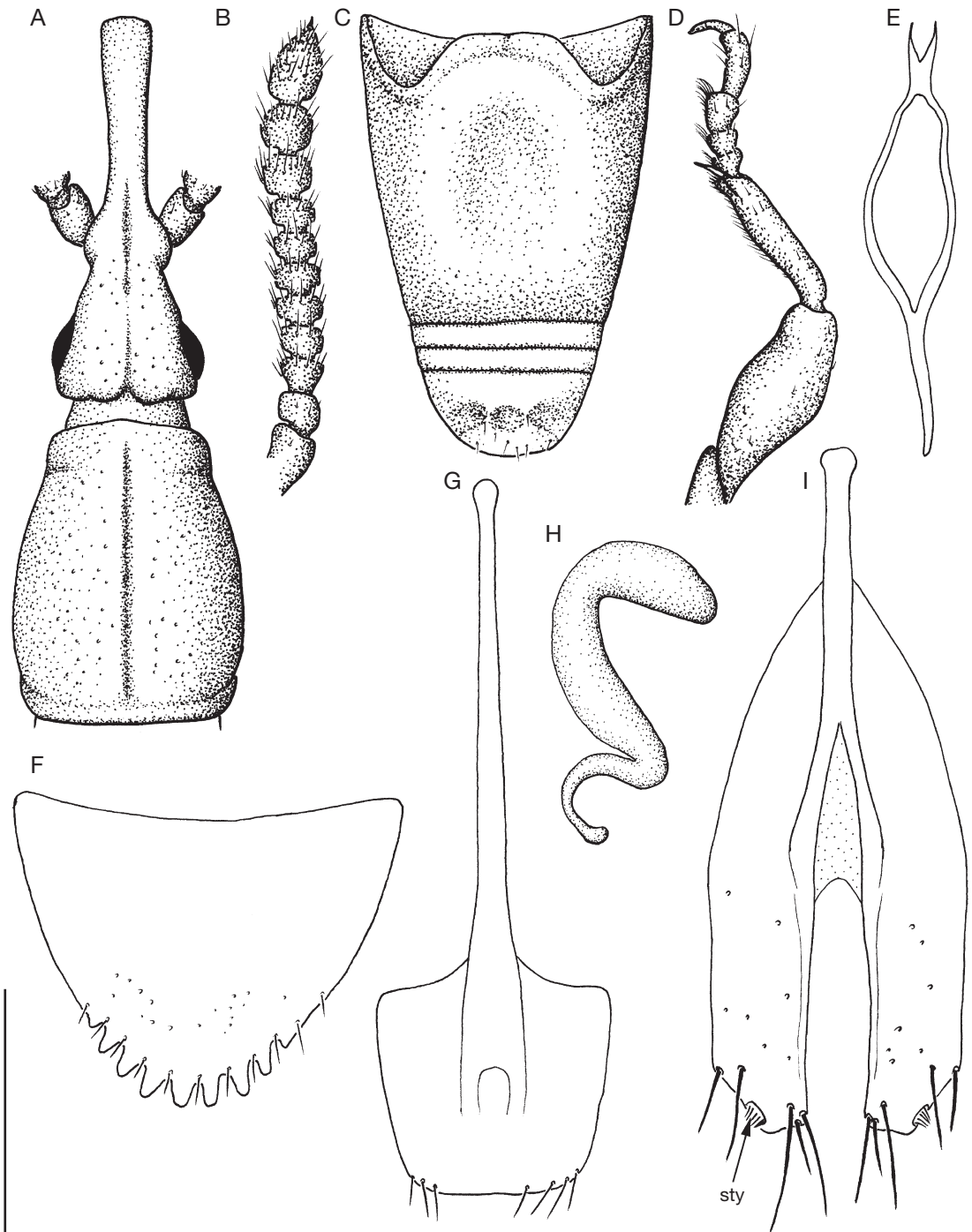


FIG. 3. — *Araiorrhinus howittii* (Pascoe, 1872): **A**, head and pronotum; **B**, antenna; **C**, abdomen of female; **D**, foreleg; **E**, tegmen; **F**, tergite VIII of female; **G**, epipleurites VIII; **H**, spermatheca; **I**, gonocoxites (**sty**, stylus). Scale bar: A-E, 1 mm; F-H, 0.4 mm; I, 0.2 mm.

form a common humeral callus. Apex of elytra rounded, rimmed.

Sternites III-IV not grooved, laterally not carinate, slightly punctate, hardly depressed in female, the depression more distinct in male (Fig. 4D); V-VI without basal notch; VII without basal notch, with broad but shallow apical fovea, apex tomentous. Tegmen with parameres not fused.

*Araiorrhinus timoriensis* Damoiseau, 1987  
(Figs 4E; 8B)

*Araiorrhinus timoriensis* Damoiseau, 1987: 63.

TYPE MATERIAL. — Timor, Doherty, ♀ holotype (MNHN EC1966) and ♀ paratype (MNHN EC1967).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Indonesia (Timor). See map (Fig. 6).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 6.1-6.6 mm; width across humeral calli: 0.8-0.9 mm. Reddish brown with a little distinct darker post-median blotch on elytra. Habitus: Figure 8B.

Head (Fig. 4E) slightly convex, not punctate, with weak basal notch. Temples not distinct. Vertex and frons not grooved. Metarostrum not grooved, foveate anteriorly. Mesorostrum slightly grooved, this groove hardly reaching the base of pronotum. Pronotum very long, 1.27-1.29× longer than head + metarostrum + mesorostrum. Antennal segment 2 conical, longer than broad; 4-8 cylindrical as long as broad or slightly longer; 9-10 cylindrical; 11 1.8× longer than 10. Venter of head, metarostrum and mesorostrum grooved.

Pronotum (Fig. 4E) shiny with very fine sparse punctures, longitudinally grooved, groove shallower at apex than at base. Prothorax deeply foveate in front of procoxae; prosternellum not distinct. Metasternum quite convex, median groove broad, sides with large punctures. Protibiae 0.77-0.83× as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Metafemora pedunculate. Elytra concave at base. Interstria 2 distinct from base to apex but

narrower in the middle; 4 present from base to apical declivity; 5, 6, 7 and 8 anteriorly fused to form a common humeral callus. Apex of elytra rounded, hardly rimmed.

Sternites III-IV slightly depressed, not grooved, with few large punctures on sides; V-VI with two weak paramedian basal notches; VII without basal notch, without apical fovea, apex more or less tomentous.

Male unknown.

*Araiorrhinus zimmermani* Mantilleri, 2011

*Araiorrhinus zimmermani* Mantilleri, 2011c: 91.

TYPE MATERIAL. — Mt Glorious, 4.I.1974, R. A. Yule, associated with *Eurhamphus fasciculatus* in hoop pine, ♀ holotype (ANIC); Queensland, Mt Glorious, 16.V.1974, R. A. Yule, ♀ paratype (MNHN EC1816). — New South Wales, E. Sutton, 20.VII.1932, Rivertree, ♂ paratype (ANIC).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Australia (Queensland, New South Wales). See map (Fig. 6).

DESCRIPTION

See Mantilleri 2011c. Habitus: Figure 8C.

Genus *Entomopisthius* Muizon, 1959

*Entomopisthius* Muizon, 1959: 77.

TYPE SPECIES. — *Entomopisthius leleupi* Muizon, 1959 by original designation.

DISTRIBUTION. — Tropical Africa, Nepal.

DIAGNOSIS. — Lateral grooves of metarostrum well distinct. Last three antennal segments flattened. Venter of head longitudinally grooved. Female without patch of white hair on head. Profemora very large, flattened. Protibiae very short, less than 3.0× longer than broad. Pronotum pyriform, much broader at base than at apex. Prothorax of male with patch of hairs in front of procoxae. Metasternum laterally not carinate. Elytra glabrous. External apical border of elytra formed by interstria 9. Apex of elytra deeply notched. Sternites III-IV laterally carinate; V-VI with basal notch; VII with basal notch and two latero-apical depressions, male with apical fovea.

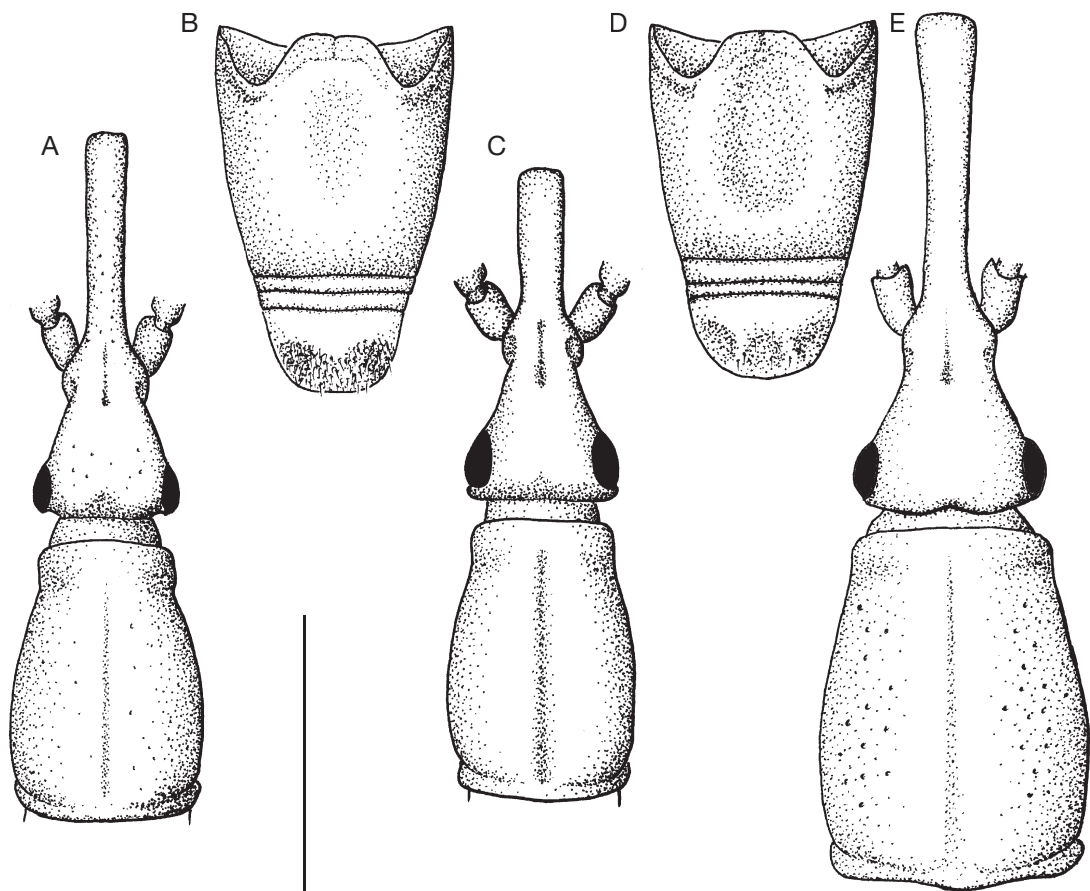


FIG. 4. — **A, B**, *Araiorrhinus levisulcatus* Damoiseau, 1987, head, pronotum (**A**) and abdomen (**B**) of female; **C, D**, *A. sondaicus* Senna, 1893, head, pronotum (**C**) and abdomen (**D**) of male; **E**, *A. timoriensis* Damoiseau, 1987, head and pronotum of female. Scale bar: 1 mm.

KEY TO THE SPECIES OF THE GENUS *ENTOMOPISTHIUS* MUIZON, 1959

- 1. Pronotum strongly punctate ..... *E. leleupi* Muizon, 1959
- Pronotum smooth and shiny ..... *E. laevigatus* Mantilleri, 2011

*Entomopisthius laevigatus*  
Mantilleri, 2011

DISTRIBUTION. — Nepal: see Mantilleri (2011b).

REMARKS

*Entomopisthius laevigatus* was recently described (Mantilleri 2011b) and is not fully redescribed here. Only diagnostic characters are given in the key.

*Entomopisthius leleupi*  
Muizon, 1959

MATERIAL EXAMINED. — Ghana, eastern region, Atewa Range, 6°13'50"N, 0°33'27"S, 730 m, at light, 26-28. III.2009, leg. E. Kondorosy, 1 ex. (HNHM).

DISTRIBUTION. — Cameroon, Democratic Republic of the Congo, Gabon (see Mantilleri [2009a]) and Ghana (new record).



## REMARKS

*Entomopisthius leleupi* was recently revised (Mantillero 2009a) and is not fully redescribed here. Only diagnostic characters are given in the key.

Genus *Higonius* Lewis, 1883

*Higonius* Lewis, 1883: 299.

TYPE SPECIES. — *Higonius poweri* Lewis, 1883, by subsequent designation (Kleine 1938).

DISTRIBUTION. — Southeast Asia, Japan, Indonesia, New Guinea, Australia, Solomon Islands.

## REMARKS

This monophyletic group was reviewed by Mantillero (2009b). Phylogeny and identification key were proposed in this work.

Genus *Hoplopisthius* Senna, 1892

*Hoplopisthius* Senna, 1892: 451.

TYPE SPECIES. — *Hoplopisthius trichemerus* Senna, 1892, by monotypy.

DISTRIBUTION. — Southeast Asia, Indonesia, New Guinea, Australia, Solomon Islands.

## REMARKS

This monophyletic group was reviewed recently (Mantillero 2010a). Phylogeny and identification key were proposed in this work.

Genus *Howeius* Mantillero, 2011

*Howeius* Mantillero, 2011c: 93.

TYPE SPECIES. — *Howeius micropterus* Mantillero, 2011, by original designation.

DISTRIBUTION. — This monotypic genus is presently known only from Lord Howe Island (Australia, New South Wales). See map (Fig. 6).

## REMARKS

This genus presents intermediate characters between *Araiorrhinus* and other Hoplopisthiini. Female genitalia are very peculiar: styli are apical as in *Araiorrhinus* but apex of gonopodes has strong sclerotisation as in other Hoplopisthiini. Another interesting feature is that the only known species of this genus, *H. micropterus* Mantillero, 2011 (habitus: Figure 9A), is micropterous and unable to fly. This character is extremely rare in brentids and is known to me only in *Stereodermus effrenatus* (Kleine, 1927) from Brazil.

Genus *Microtrachelizus* Senna, 1893

*Microtrachelizus* Senna, 1893a: 315.

*Ceunonus* Kleine, 1922a: 138. Syn. Damoiseau 1963b: 127. — Type species: *Ceunonus minutus* Kleine, 1922, by monotypy.

TYPE SPECIES. — *Trachelizus lyratus* Perroud & Montrouzier, 1865, by subsequent designation (Lucas 1920).

DISTRIBUTION. — Tropical Africa (including Madagascar and Comoros), Southeast Asia, Indonesia, New Guinea, Australia, Solomon Islands, New Caledonia.

DIAGNOSIS. — Head without cephalic lobes above neck. Apex of antennomere 11 pointed but not strongly acuminate. Prorostrium usually shorter than 0.8× head + metarostrium + mesorostrium. Mesorostrium not strongly raised. Sternite VII of abdomen with two latero-apical depressions (except in *M. enigmaticus*). Gonopods IX with sclerified lateral tooth. Styli strongly reduced, lateral.

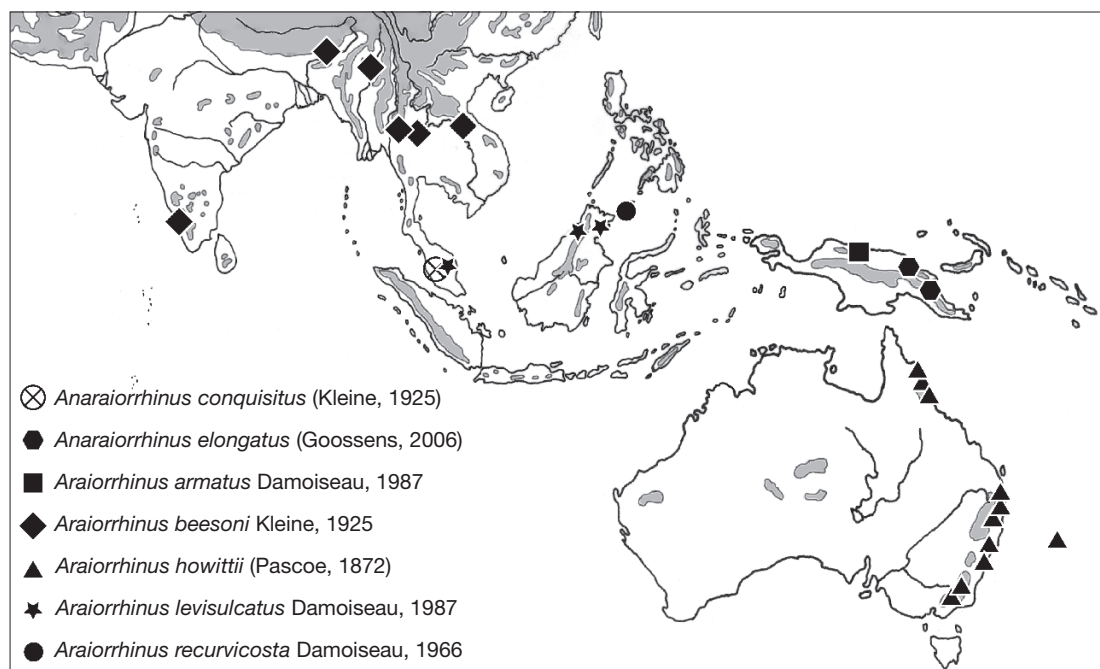
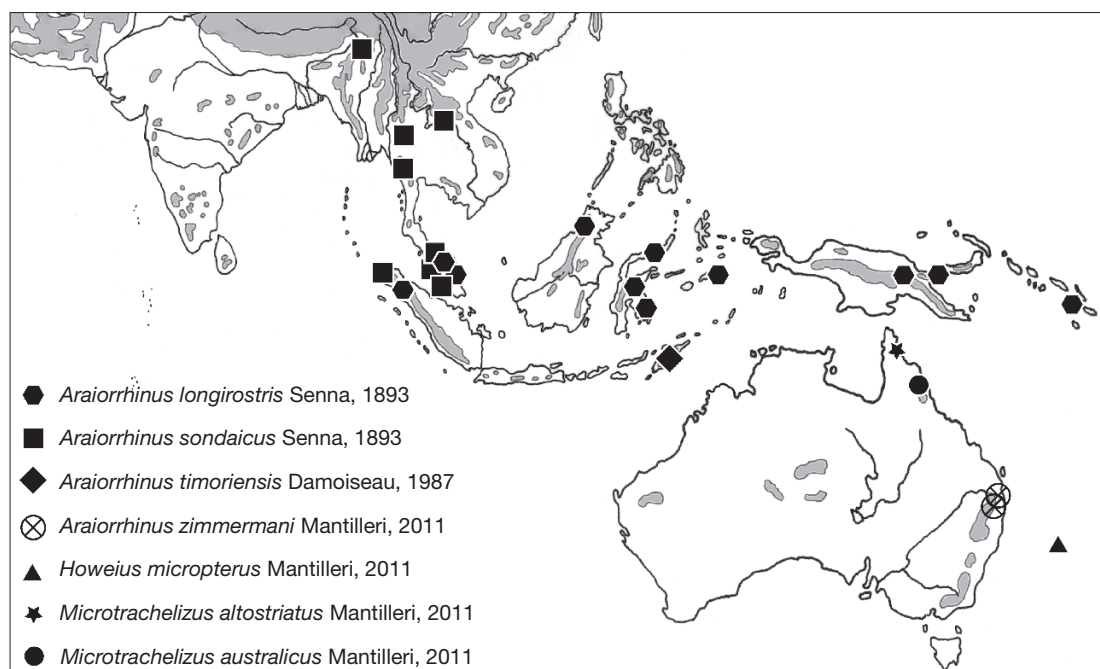
## REMARKS

This large genus, the largest of the tribe with 42 known species, is obviously polyphyletic but it is out of the scope of this study to understand the taxonomic position of each species of this group. In my opinion, only molecular data could help solve this problem as there seems to be a lot of morphological convergences and many species are very similar.

KEY TO THE SPECIES OF THE GENUS *MICROTRACHELIZUS* SENNA, 1893

1. Elytral interstria 2 distinct at least at base ..... 2
- Elytral interstria 2 not distinct at base or missing ..... 20
2. Antenna with setae much longer on the inner side of antennomeres (Fig. 24A); sternite VII of male abdomen with a large semi-circular basal notch ..... 3



Fig. 5. — Distribution map of *Anaraiorrhinus* spp. and *Araiorrhinus* spp.Fig. 6. — Distribution map of *Araiorrhinus* spp., *Howeius* spp. and *Microtrachelizus* spp.

- Antenna with setae not longer on the inner side of antennomeres; basal notch on sternite VII of male abdomen smaller or missing ..... 4
- 3. Head with a strong median basal notch and two weaker paramedian notches; sternites V-VI of male abdomen with small notches ..... *M. monilicornis* Damoiseau, 1987
- Head with a very weak median basal notch, without paramedian notches; sternites V-VI of male abdomen smooth ..... *M. enigmaticus* Mantilleri, 2007
- 4. Longitudinal pronotal groove distinct over full length ..... 5
- Longitudinal pronotal groove distinct only at base ..... 13
- 5. Elytral interstria 2 strongly reduced on median part of elytra ..... 6
- Elytral interstria 2 not strongly reduced on median part of elytra ..... 8
- 6. Elytral interstria 4 not reaching base of elytra ..... *M. montrouzieri* Senna, 1903
- Elytral interstria 4 reaching base of elytra ..... 7
- 7. Vertex grooved ..... *M. fractus* Kleine, 1924
- Vertex not grooved ..... *M. lyratus* (Perroud & Montrouzier, 1865)
- 8. Elytral interstriae strongly elevated, interstria 2 much lower than 1 and 3; interstria 6 missing, 8 distinct only on the posterior part or missing (it seems there are only 7 interstriae) ..... *M. accomodatus* Kleine, 1922 (*pars*)
- Elytral interstriae not elevated, interstria 2 hardly lower than 1 and 3; interstriae 6 and 8 distinct on the major part of elytra (9 interstriae are distinct) ..... 9
- 9. Elytra glabrous ..... 10
- Elytra with long setae ..... *M. silvicola* Senna, 1903
- 10. Elytra with a darker sutural blotch ..... *M. australicus* Mantilleri, 2011
- Elytra entirely reddish brown ..... 11
- 11. Pronotum quite strongly punctate at base and on sides; mesorostrum elevated ..... *M. charlottae* Mantilleri, 2010
- Pronotum not strongly punctate; mesorostrum not elevated ..... 12
- 12. Elytral interstriae 6 and 7 connected forward; abdomen lengthened (Fig. 17F); species shiny ..... *M. borneensis* Damoiseau, 1987
- Elytral interstriae 6 and 7 not connected forward; abdomen broader (Fig. 17A); species dull ..... *M. beneficus* Kleine, 1925
- 13. Elytra with squamulose setae ..... 14
- Elytra glabrous ..... 15
- 14. Head and pronotum with coarse punctures; temples longer ..... *M. mentaweicus* Senna, 1898
- Head and pronotum without coarse punctures; temples shorter ..... *M. costatus* Damoiseau, 1987
- 15. Lateral grooves of metarostrum not distinct; eyes large ... *M. macrophthalmus* Mantilleri, 2010
- Lateral grooves of metarostrum distinct; eyes smaller ..... 16
- 16. External apical border of elytra rounded ..... 17
- External apical border of elytra forming an angle; apex of elytra notched ..... *M. siamensis* Kleine, 1926

17. Sternite VII of female with two distinct paramedian basal notches ..... *M. semistriatus* Damoiseau, 1987  
— Sternite VII of female with one median basal notch sometimes bilobed ..... 18
18. Procoxae of male hairy ..... *M. contiguus* (Senna, 1893)  
— Procoxae of male glabrous ..... 19
19. Apical fovea of sternite VII of male circular (Fig. 17M) ..... *M. plenicosatus* Damoiseau, 1987  
— Apical fovea of sternite VII of male not circular, crescent-shaped (Fig. 20E); parameres very short (Fig. 20F) ..... *M. pahanganus* Mantilleri, 2007
20. Elytra with raised setae or squamulae, at least on apical declivity ..... 21  
— Elytra glabrous ..... 26
21. Head strongly hairy ..... *M. pubescens* Senna, 1893  
— Head not hairy ..... 22
22. Head and pronotum quite coarsely punctate (Fig. 17K); elytra with long setae ..... *M. imbecillus* Kleine, 1926  
— Head and pronotum not coarsely punctate; elytra with shorter setae ..... 23
23. Lower side of profemora with a brush of thick setae .... *M. inexpectatus* Mantilleri, 2007  
— Lower side of profemora without thick setae ..... 24
24. Segments 3-8 of antennae as long as broad, 9-10 ovate ..... *M. sirambeicus* Senna, 1903  
— Segments 3-8 of antennae broader than long ..... 25
25. Temples quite long; elytra with few setae at apex; longitudinal groove of pronotum not deep; reddish brown species ..... *M. thai* Mantilleri, 2010  
— Temples short; elytra with quite numerous squamulous setae; longitudinal groove of pronotum deep at base; darker species ..... *M. rudis*
26. Longitudinal pronotal groove distinct only at base ..... 27  
— Longitudinal pronotal groove distinct over full length ..... 29
27. Elytral interstria 4 not reaching base of elytra ..... *M. queenslandicus* Damoiseau, 1987  
— Elytral interstria 4 reaching base of elytra ..... 28
28. Prorostum as long as head + metarostum + mesorostum together ..... *M. coomani* Damoiseau, 1987  
— Prorostum shorter than head + metarostum + mesorostum together ..... *M. brevisulcatus* Senna, 1894
29. Vertex grooved ..... 30  
— Vertex not grooved ..... 34
30. Elytral interstriae strongly elevated; interstriae 6 missing, 8 distinct only on posterior part or missing (it seems there are only 7 interstriae) ..... *M. accomodatus* Kleine, 1922 (*pars*)  
— Elytral interstriae not strongly elevated; interstria 6 and 8 distinct ..... 31
31. Temples short, protruding behind eyes; reddish brown ..... 32  
— Temples longer, not protruding behind eyes; reddish brown with a small darker blotch on elytra ..... *M. weigeli* Mantilleri, 2010

32. Head punctate; sternite VII with a well-distinct apical fovea ..... 33  
 — Head not punctate; sternites III-IV of male hairy (Fig. 17L); sternite VII without well-distinct apical fovea ..... *M. ghecuanus* (Senna, 1892)
33. Prothorax and procoxae of male hairy; parameres completely fused (Fig. 25D); basal notch of sternite VII of female bilobed (Fig. 25C) ..... *M. floreni* n. sp.  
 — Prothorax and procoxae of male not hairy; parameres not fused; sternite VII of female with semi-circular basal notch ..... *M. tabaci* Senna, 1893
34. Pronotum punctate ..... 35  
 — Pronotum smooth or microreticulate ..... 36
35. Striae of elytra quite strongly punctate ..... *M. targionii* Senna, 1893  
 — Striae of elytra not strongly punctate ..... *M. elephas* Mantillero, 2011
36. Elytral interstriae strongly raised ..... 37  
 — Elytral interstriae not strongly raised, slightly convex ..... 38
37. Elytral interstria 2 well distinct posteriorly ..... *M. altostriatus* Mantillero, 2011  
 — Elytral interstriae 2 obsolete ..... *M. cylindricornis* (Power, 1880)
38. Prothorax of male hairy in front of procoxae; parameres never fused ..... 39  
 — Prothorax of male glabrous; parameres fused or not ..... 40
39. Abdomen of male with numerous scale-like setae; gonocoxites with only one membranous lateral lobe (cf. Fig. 25F) ..... *M. lepidus* Mantillero, 2007  
 — Abdomen of male without scale-like setae; gonocoxites with two membranous lateral lobes (cf. Fig. 23I) ..... *M. occultus* Kleine, 1935
40. Prorostum short, less than 0.5× head + metarostum + mesorostum together; paramedian basal notches of head weak; sternite VII of female with a small basal notch; parameres not fused ..... 41  
 — Prorostum longer, more than 0.5× head + metarostum + mesorostum together; paramedian basal notches of head more distinct; sternite VII of female (Fig. 17B) with a large basal notch; parameres fused (Fig. 17D) ..... *M. bhamoensis* (Senna, 1892)
41. Elytral interstria 6 connected forward to interstriae 5 and 7 ..... 42  
 — Elytral interstria 6 not connected forward to interstriae 5 and 7 ... *M. hlavaci* Mantillero, 2010
42. Species from Afrotropical region (including Madagascar) .... *M. rectestriatus* (Fairmaire, 1897)  
 — Species from Papuan region ..... *M. poggii* Mantillero, 2007

*Microtrachelizus accomodatus* Kleine, 1922  
 (Fig. 9B, C)

*Microtrachelizus accomodatus* Kleine, 1922b: 208.

*Microtrachelizus fluxus* Kleine, 1923b: 162, n. syn.

TYPE MATERIAL. — *Microtrachelizus accomodatus*: Sandakan, Borneo, 1922, Baker, ♂ holotype (SMTD).  
*Microtrachelizus fluxus*: Cuernos Mts, Negros, 1921, Baker, ♀ holotype (SMTD).

MATERIAL EXAMINED. — **Brunei**. Temburong Dist., ridge NE Kuala Belalong, 300 m, 125 W m. v. light, X.1992, J. H. Martin, 4 ex. (2 in NHMUK, 2 in MNHN).

**Malaysia**. Holotype of *M. accomodatus*.

**Papua New Guinea**. New Guinea, Papua, Kiunga, Fly River, 1-7.X.1957, W. W. Brandt, 1 ex. (BPBM). — New Guinea, Kuper Ra, 1-8 m, 25 km SE Salamaua, 25-26.I.1969, J. Sedlacek, 1 ex. (BPBM); New Guinea, NE, Kuper Ra, 300-700 m, 24.I.1969, J. Sedlacek, 1 ex. (BPBM).

**Philippines**. Luzon, Camarines Sur, Mt Isarog, Pili, 800 m, 23.IV.1965, H. M. Torrevillas, 1 ex. (BPBM). — Holotype of *M. fluxus*.

DISTRIBUTION. — Brunei, Malaysia, Papua New Guinea, Philippines. The occurrences in India and Myanmar (Sforzi & Bartolozzi 2004: 634) have not been verified. See map (Fig. 15).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.8–6.0 mm; width across humeral calli: 0.8–1.0 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 9B, C.

Head strongly broader than long, dull, not punctate, microreticulate, with deep median basal notch. Temples short, protruding behind eyes. Vertex and frons deeply grooved, this groove reaching basal half of pronotum. Lateral grooves of metarostrum deep, well distinct. Pronotum 0.55–0.72× as long as head + metarostrum + mesorostrum. Antennal segment 2 cylindrical, slightly broader than long; 3 conical as long as broad; 4–8 subcylindrical, broader than long; 9–10 barrel-shaped hardly longer than broad; 11 1.6–1.8× longer than 10. Venter of head finely grooved.

Pronotum dull, microreticulate, not punctate, longitudinally grooved. Prothorax with small fovea in front of procoxae; prosternellum not distinct. Metasternum flattened in male, convex in female, grooved, laterally carinate. Protibiae 0.54–0.67× as long as profemora; calcar at apex of protibia as long as first protarsal segment. Elytra glabrous, weakly concave at base. Interstriae 1, 3, 4 and 5 protruding forward; all interstriae strongly raised except interstria 2. Interstria 2 distinct from base to apex but sometimes almost missing; 5 and 6 anteriorly fused to form a common humeral callus; 6 abruptly interrupted at apical declivity and almost forming a tooth and external apical border formed by interstria 7 in female; external apical border formed by interstria 6 in male; 8 distinct only at base in female; 7 and 8 well distinct in male. Apex of elytra slightly expanded and angulus.

Sternites III–IV slightly depressed or flat in male, flat or hardly convex in female, not grooved, strongly carinated laterally; V–VI with 3 basal notches; VII with large basal notch, apical fovea, apex more or less hairy. Tegmen with parameres filiform, not fused. Tergite VIII of female weakly denticulate. Gonocoxites with one membranous lateral lobe.

#### REMARKS

Comparison of the male holotype of *M. accomodatus* with the female holotype of *M. fluxus* revealed that these two names refer to the same species, and they are therefore here synonymised.

#### *Microtrachelizus altostriatus* Mantilleri, 2011

*Microtrachelizus altostriatus* Mantilleri, 2011c: 96.

TYPE MATERIAL. — Cape York Pen., N. Q., Iron Range, 15.IX.1974, A. & M. Walford-Huggins, ♂ holotype (ANIC). — 6 km ENE of Mt Tozer, QLD, 12°44'S, 143°16'E, at light, 30.VI.1986, T. Weir & A. Calder, ♂ paratype (MNHN EC1817).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Australia (Queensland). See map (Fig. 6).

#### DESCRIPTION

See Mantilleri 2011c.

#### *Microtrachelizus australicus* Mantilleri, 2011 (Fig. 9H)

*Microtrachelizus australicus* Mantilleri, 2011c: 96.

TYPE MATERIAL. — QLD. AUST., Cairns, 11.X.1971, Whitfield R., 11 miles, A. & M. Walford-Huggins, ♂ holotype (ANIC). — Whitfield R., Cairns N. Q., 1350', 16.II.1971, J. G. Brooks, ♂ paratype (MNHN EC1821). — Whitfield, Cairns N. Q., 1100', 14.XII.1970, J. G. Brooks, ♀ paratype (ANIC). — Australia, N. Qld, Windsor Tableland, 38 km from main road, 15.I–8.III.1986, Storey & Brown, MDPI intercept trap site n°14C, ♀ paratype (ANIC). — Australia, Cairns, Qld, XI.1947, J. G. Brooks, E. Gowing-Scopes collection, ♂ paratype (NHMUK). — Australia, N. QLD, Millaa Millaa Falls, 4.I–7.II.1990, Storey & Halfpapp, MDPI F.I.T. site 34, E. Gowing-Scopes collection, ♂ paratype (NHMUK). — Kuranda, N. Q., 8.III.1969, J. G. B., prép. micro. n°AM00086, ♀ paratype (MNHN EC1818).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Australia (Queensland). See map (Fig. 6).

#### DESCRIPTION

See Mantilleri 2011c. Habitus: Figure 9H.

*Microtrachelizus beneficus* Kleine, 1925  
(Figs 10A; 17A)

*Microtrachelizus beneficus* Kleine, 1925: 139.

TYPE MATERIAL. — Margherita, Lakhimpur Div., Assam, 24.XI.1921, Dy: R. coll., ex *Shorea assamica*, ♂ lectotype (NHMUK) and paralectotype (SMTD).

MATERIAL EXAMINED. — **Brunei.** Temburong Dist., ridge NE Kuala Belalong, 300 m, 125 W m. v. light, X.1992, J. H. Martin, 1 ex. (NHMUK).

**India.** ♂ lectotype and paralectotype. — Assam, Patkai Mts, Doherty, 1 ♀ (NHMUK).

**Malaysia.** N Borneo, Bettotan, near Sandakan, 06. VIII.1927, 1 ex. (NHMUK). — Perak, Doherty, 3 ex. (2 in NHMUK, 1 in MNHN).

DISTRIBUTION. — Brunei, India, Malaysia. See map (Fig. 16). The occurrence in Vietnam (Sforzi & Bartolozzi 2004: 636) has not been verified but is highly probable.

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.3–6.3 mm; width across humeral calli: 0.8–1.0 mm. Reddish brown, without darker postmedian blotch on elytra or blotch hardly distinct. Habitus: Figure 10A.

Head broader than long, hardly punctate, with large basal median notch and two weak paramedian notches. Temples very short, protruding behind eyes. Vertex and frons grooved, the groove deeper on metarostrum and vanishing on prorostrum. Lateral grooves of metarostrum deep. Prorostrum 0.51–0.61× as long as head + metarostrum + mesorostrum. Antennal segment 2 cylindrical, broader than long; 3 conical as long as broad; 4–8 broader than long; 9–10 barrel-shaped, slightly longer than broad; 11 1.7–1.8× longer than 10. Venter of head, metarostrum and mesorostrum longitudinally grooved.

Pronotum almost dull, microreticulate, longitudinally grooved, finely punctate. Prothorax slightly foveate in front of procoxae; prosternellum not distinct. Protibiae 0.5–0.7× as long as profemora. Metasternum flattened, longitudinally grooved, laterally carinate (carinae weaker in female). Elytra glabrous, base slightly concave. Interstriae 1, 3, 4 and 5 more or less protruding forward; 2 distinct from base to apex; 3 present from base to apex; 4 present from base to apical declivity; 5 and 7

fused anteriorly to form a common humeral callus; 6 not reaching base; 8 starting just before first half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed, not notched. Hindwings with weakly sclerotised basal sclerite.

Sternites III–IV of male strongly depressed, not or hardly grooved, laterally carinate; III–IV of female (Fig. 17A) flattened, hardly grooved, laterally carinate; V–VI with 2–3 basal notches; VII with median notch at base and apical fovea, apex hairy. Tegmen with parameres filiform, not fused. Tergite VIII of female denticulate at apex. Gonocoxites with one membranous lateral lobe.

*Microtrachelizus bhamoensis* (Senna, 1892)  
(Figs 11A, B; 17B–D)

*Trachelizus bhamoensis* Senna, 1892: 456.

*Microtrachelizus bhamoensis* – Senna 1893a: 316.

*Microtrachelizus apertus* Kleine, 1925: 140, n. syn.

TYPE MATERIAL. — *Microtrachelizus bhamoensis*: Bhamo, Birmania, Fea, VII.1886, ♂ holotype (MSNG).

*Microtrachelizus apertus*: U. Dihing Res., Lakhimpur, Assam, 5.VI.1921, C. F. C. Beeson, ex *Dalbergia assamica*, ♀ paralectotype (NHMUK).

MATERIAL EXAMINED. — **Brunei.** Temburong Dist., ridge NE Kuala Belalong, 300 m, 125 W m. v. light, X.1992, J. H. Martin, 1 ex. (NHMUK).

**China.** Yunnan, Tongbiguan, 24°36'N, 97°35'E, alt. 1180 m, 13.VI.2001, Deuve, Mantilleri, Rougerie & Tian leg., 1 ex. (MNHN). — S Yunnan, P. Xishuangbanna, 23 km NW Jinghong, Na Ban village, 22°10.04'N, 100°39.52'E, 680 m, 20.V.2008, leg. A. Weigel, 1 ex. (NME).

**India.** British Bootang, Maria Basti, 1899, 1 ex. (MNHN). — ♀ paralectotype of *M. apertus*. — Gopaldhara, Rungbong Vall., Sikkim, H. Stevens, 1 ex. (NHMUK). — Gopaldhara, Darjiling, 3440–4720 ft, H. Stevens, June, 1 ex. (NHMUK). — Andamans, Roepstorff, 1 ex. (NHMUK). — NE India, Assam, Bhalukpong, 27°02'N, 92°35'E, 150 m, L. Dembicky leg., 26.V-03.VI.2006, 30 ex. (28 in NHMUK, 2 in MNHN). — Meghalaya, Garo Hills, Dainadubi, 250 m, 4.XI.1978, Bésuchet & Löbl, 6 ex. (4 in MHNG, 2 in MNHN).

**Indonesia.** Sumatra, 1 ex. (MNHN). — Sumatra, s. tobacco, A. Grouvelle, 1 ex. (MZUF). — Fort de Kock, Sumatra, 920 m, 1925, leg. E. Jacobson, 2 ex. (MNHN, coll. PH). —



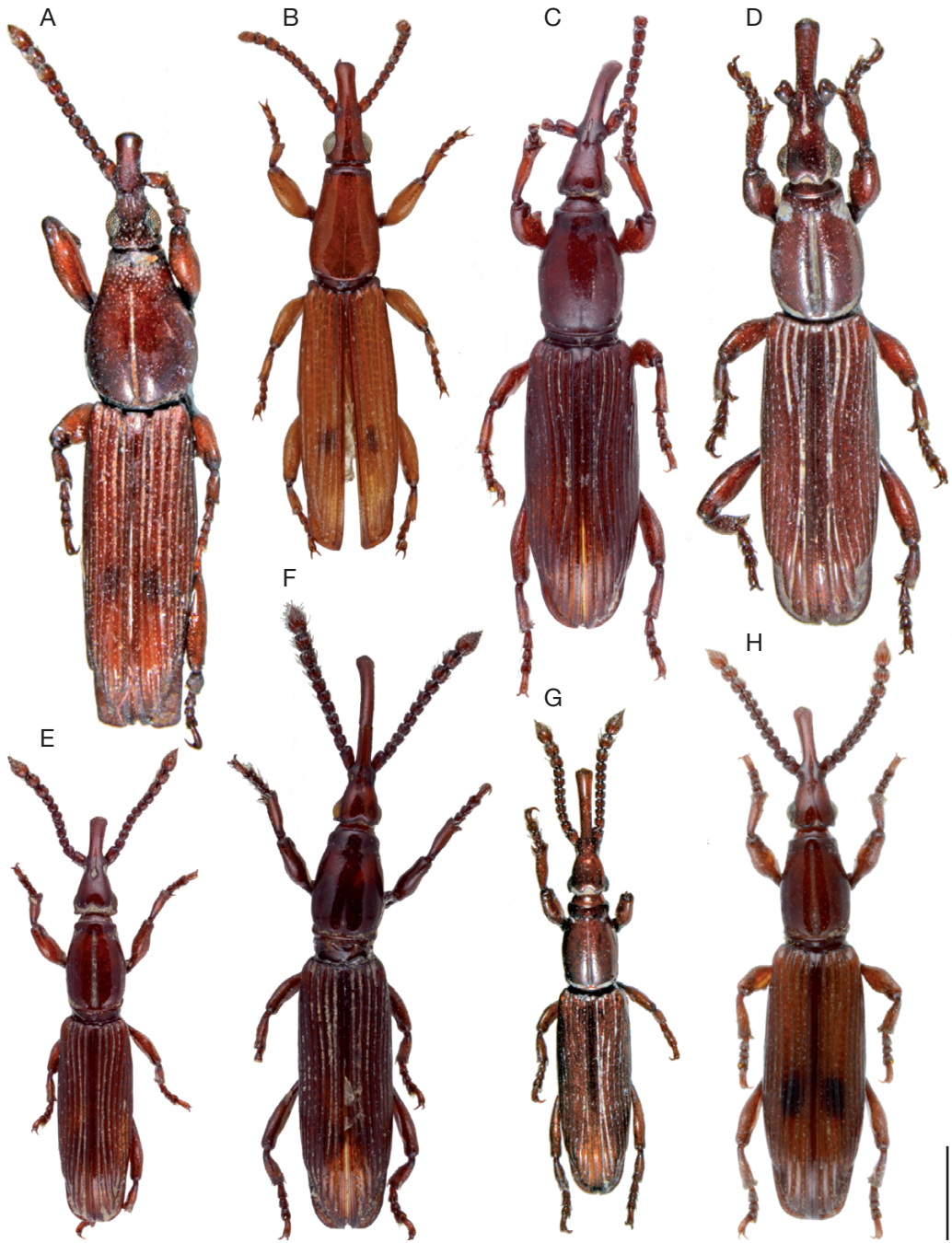


FIG. 7. — Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Anaraiorrhinus conquisitus* (Kleine, 1925), ♀ holotype; **B**, *A. elongatus* Goossens, 2006, ♀ holotype; **C**, *Araiorrhinus armatus* Damoiseau, 1987, ♂ holotype; **D**, *A. beesoni* Kleine, 1925, ♂ holotype; **E**, *A. sondaicus* Senna, 1893, ♂ lectotype; **F**, *A. exportatus* Senna, 1893, ♀ paralectotype; **G**, *A. levisulcatus* Damoiseau, 1987, ♀ holotype; **H**, *A. howittii* (Pascoe, 1872), ♂ holotype. Scale bar: 1 mm.

Noord-Sumatra, Alas vallei, c. 450 m, leg. K. Benner, VI.1941, 1 ex. (MZB). — S Sumatra, Lampung prov., Bukit Barisan Selatan NP, 5 km W Liwa, 05°04'S, 104°04'E, 600 m, 7-17.II.2000, J. Bezdek leg., 3 ex. (2 in NMPC, 1 in MNHN). — G. Tangkoeboan Prahoe, 4000-5000 Voet, Preanger, Java, X.1933, 1 ex. (MZB). — Mentawai, Sipora, Sereinu, V-VI.1894, Modigliani, 3 ex. (MSNG); E Java, Kediri, Besoeki, 1 ex. (NHMUK). — Java, Waterstradt, 2 ex. (IRSNB). — W Sumatra, Bengkulu prov., nr Curup, Bukit Kaba Mt, 03°29'S, 102°36'E, 1000-1500 m, 30.I-3.II.2009, J. Bezdek leg., 2 ex. (NMPC). — Sumatra, Dolok Baros, 1 ex. (MNHUB). — West Sumatra, Mt Sanggul, 1200 m, c. 25 km N of Payakumbuh, IV.2007, leg. St. Jakl, 1 ex. (IRSNB). — Sumatra, Aceh-Selatan, Babahrot, 100 m, VII-VIII.1983, J. Klapperich, 2 ex. (MHNG).

**Laos.** North, 15 km NW Louang Namtha, 21°07.5'N, 101°21'E, alt. 750 ± 100 m, 13-24.V.1997, E. Jendek & O. Sausa leg., 1 ex. (coll. AM). — Laos north, 20 km NW Louang Namtha, 5-11.V.1997, M. Strba & R. Hergovits leg., 1 ex. (coll. PH).

**Malaysia.** N. Borneo, Samawang, nr Sandakan, jungle, VII.1927, 1 ex. (NHMUK). — Hulu Perak, Bangunan Camp c/o Kampung Semelor (E shore lake Tasik-Temen-gor), 5°30'18"N, 101°26'16"E, 230 m, 29.VI-4.VII.2008, L. Bartolozzi, G. Mazza, F. Cianferoni & F. Fabiano leg., 1 ♂ (MZUF). — Kelantan, Pergau Dam, 5°35'54"N, 101°43'50"E, 750 m, 4.VII.2008, L. Bartolozzi, G. Mazza, F. Cianferoni & F. Fabiano leg., 1 ♂ (MZUF).

**Myanmar.** Holotype.

**Nepal.** Nepal, 22-26.V.1990, Chitwan N. P., Saura, S. Bily leg., 1 ex. (NMPC).

**Philippines.** Alabat Is., V.2005, light trap, H. Takano & T. Owen Edmunds, 1 ex. (NHMUK).

**Thailand.** Tak Province, Umphang District, Mae Chan/Mae Klong confluence, 27.IV-6.V.1988, 15°30'N, 98°48'E, 1 ex. (NHMUK). — Chiang Mai, c. 10 km O Fang, Doi Auckhang, 1460 m, à la lumière, 20-23.V.1986, leg. P. Schwendiger, 2 ex. (MHNG, MNHN).

**Vietnam.** Tonkin, région de Hòa Bình, A. de Cooman 1933, 27 ex. (MNHN); Hòa Bình, Tonkin, A. de Cooman, 14 ex. (MNHN); Tonkin, Hòa Bình, A. de Cooman, 4 ex. (NHMUK). — Lachto, Tonkin, de Cooman, 3 ex. (MNHN). — Frontière Chine-Tonkin, région de Lao-Kay et Ho-Kheou, Ch. Dupont 1900, 1 ex. (MNHN).

**DISTRIBUTION.** — Brunei, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Thailand, Vietnam. See map (Fig. 18). As previously noticed (Mantilleri 2011c), the occurrence in New Guinea (Sforzi & Bartolozzi 2004: 636) is erroneous and should be referred to *M. occultus* Kleine, 1935.

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.4-7.5 mm; width across humeral calli: 0.65-1.1 mm.

Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 11A, B.

Head broader than long, not punctate, with three distinct basal notches. Vertex and frons not grooved. Eyes bulging, temples short, protruding behind eyes. Metarostrum foveate; mesorostrum grooved; prorostrum smooth, 0.52-0.58× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 3 conical, broader than long; 4-8 cylindrical, broader than long; 9-10 barrel-shaped; 11 1.5-1.9× longer than 10. Venter of head and metarostrum with deep median groove.

Pronotum almost dull, microreticulate, longitudinally with deep groove. Prothorax foveate in front of procoxae; prosternellum not distinct. Protibiae 0.62-0.72× as long as profemora. Calcar at apex of protibia longer than first protarsomere. Metasternum hardly grooved and depressed, carinate laterally. Elytra glabrous, concave at base. Interstria 2 distinct only at apex; 5, 6 and 7 anteriorly fused to form a common humeral callus; 8 not reaching base; external apical border formed by interstria 9. Apex of elytra rimmed, rounded, with large border. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV laterally carinate, depressed in male, grooved and almost flat in female (Fig. 17B); V-VI with three basal notches; VII with large basal notch and apical fovea. Basal notch of sternite VII smaller in male (Fig. 17C). Tergite VIII of female denticulate at apex. Gonocoxites with two membranous lateral lobes. Tegmen with parameres filiform, fused at base (Fig. 17D).

#### REMARKS

It was impossible to find the lectotype of *M. apertus* designated by Damoiseau (1987) in NHMUK. But comparison of the female paralectotype of *M. apertus* with numerous specimens (including the type) of *M. bhamoensis* shows these two taxa are synonyms. Apical fovea of sternite VII of paralectotype of *M. apertus* is just smaller than usually, but all the other characters are similar to *M. bhamoensis*. Moreover, the type locality in India (Assam) is included in the distribution area of *M. bhamoensis*. For these reasons, *M. apertus* should be considered a junior subjective synonym of *M. bhamoensis*.

*Microtrachelizus borneensis* Damoiseau, 1987  
(Figs 10H; 17E, F)

*Microtrachelizus borneensis* Damoiseau, 1987: 56.

TYPE MATERIAL. — Sabah, Mt Kinabalu, E Mesilau River, 31.I.1964, J. Smart, Royal Soc. expd., B. M. 1964-250, ♂ holotype (NHMUK).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Malaysia (Borneo). See map (Fig. 15).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 6.0 mm; width across humeral calli: 0.8 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 10H.

Head (Fig. 17E) broader than long, finely punctate, with three basal notches. Vertex and frons deeply grooved. Eyes bulging, temples well distinct and protruding behind eyes. Metarostrum foveate and grooved, the groove reaching the base of prorostrum. Lateral grooves of metarostrum well distinct. Prorostrum  $0.51\times$  as long as head + metarostrum + mesorostrum. Antennal segment 3 conical, longer than broad; 4-8 cylindrical, broader than long; 9-10 slightly flattened; 11  $1.8\times$  longer than 10, pointed at apex. Venter of head and metarostrum grooved.

Pronotum microreticulate, slightly punctate, longitudinally grooved, the groove deeper at base than at apex. Prothorax with very small fovea in front of procoxae; prosternellum not distinct. Protibiae  $0.53\times$  as long as profemora. Calcar at apex of protibia hardly as long as first protarsomere. Metasternum flat, grooved, laterally not carinate. Elytra glabrous, concave at base. Interstria 2 distinct from base to apex but narrower in the middle; 4 present from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 not reaching base; 9 forming external apical border of elytra. Apex of elytra rimmed.

Sternites III-IV depressed, laterally carinate; III weakly grooved at base; V-VI with two paramedian basal notches; VII with large basal notch and apical fovea (Fig. 17F).

Female unknown.

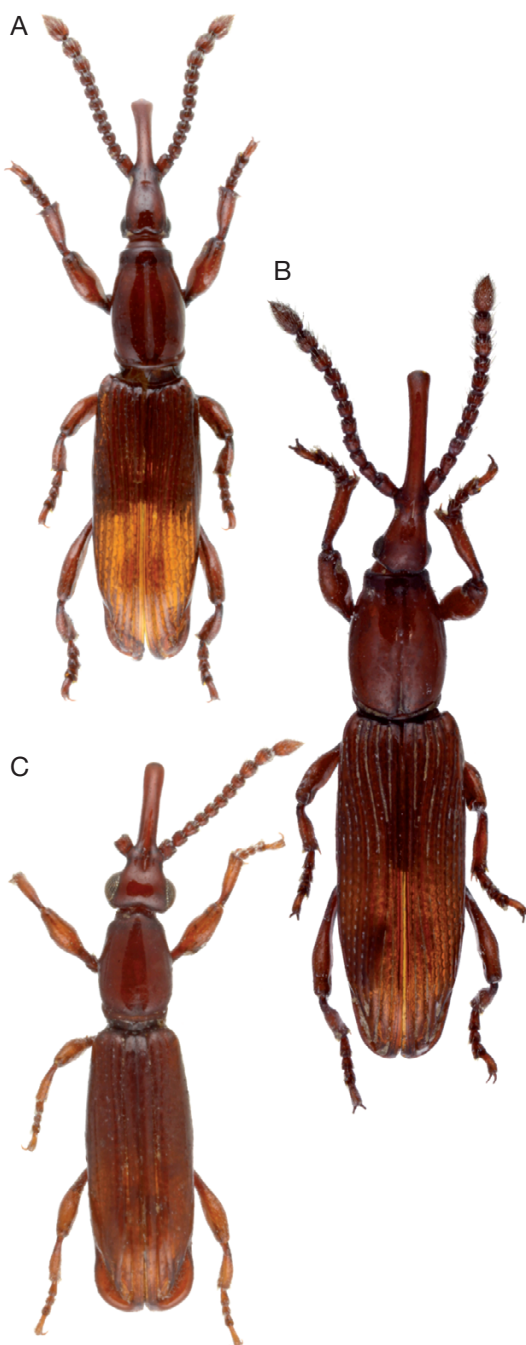


FIG. 8. — Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Araiorhinus recurvicosta* Damoiseau, 1966, ♂ holotype; **B**, *A. timoriensis* Damoiseau, 1987, ♀ paratype; **C**, *A. zimmermani* Mantilleri, 2011, ♀ paratype. Scale bar: 1 mm.

*Microtrachelizus brevisulcatus* Senna, 1894  
(Figs 13A, B; 20A, B)

*Microtrachelizus brevisulcatus* Senna, 1894: 558.

*Microtrachelizus dubius* Kleine, 1935: 307, n. syn.

TYPE MATERIAL. — *Microtrachelizus brevisulcatus*: N. Guinea, Ighibirei, *Loria*, VII-VIII.1990, typus, ♀ lectotype (MZUF) and 2 paralectotypes (MZUF, MSNG).

*Microtrachelizus dubius*: Papua, Kokoda, 1200 ft, VII.1933, L. E. Cheesman, ♂ holotype (NHMUK).

MATERIAL EXAMINED. — **Indonesia**. Sulawesi Utara, Dumoga-Bone NP, III.1985, fog 11, 250 m, 10.III.1985, 1 ex. (NHMUK). — Maluku, Seram, Solea, 12 km SE Wahai, 17.I-6.II.1997, S. Bily leg., 1 ex. (NMPC). **Malaysia**. Hulu Perak, Bungan, Camp c/o Kampung Semelur (E shore lake Tasik-Temengor), 5°30'18"N, 101°26'16"E, 230 m, 29.VI-4.VII.2008, L. Bartolozzi, G. Mazza, F. Cianferoni & F. Fabiano leg., 1 ex. (MZUF). **Papua New Guinea**. See type material above. — Bismarck Arch., Vudal, New Britain, SW of Keravat, 13.XII.1959, T. C. Maa, 1 ex. (BPBM).

**Thailand**. NW Thailand, Mae Hong Son, Ban Si lang, 1000 m, 1-7.V.1992, S. Bily leg., 1 ex. (NMPC).

DISTRIBUTION. — Indonesia, Papua New Guinea, Thailand. See map (Fig. 15).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.1-4.6 mm; width across humeral calli: 0.4-0.7 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 13A, B.

Head (Fig. 20A) strongly broader than long, not punctate, with three basal notches. Vertex and frons not grooved. Temples short, protruding behind eyes. Metarostrum, mesorostrum and the base of prorostrum grooved. Prorostrum 0.65-0.80× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum weak, tomentous. Antennal segment 3-8 strongly broader than long; 3 conical; 4-8 cylindrical; 9-10 globular; 11 1.5-2.0× longer than 10. Venter of head and metarostrum pruinose, longitudinal groove hardly distinct.

Pronotum (Fig. 20A) quite shiny, microreticulate, with longitudinal groove distinct only at base. Prothorax with deep fovea in front of procoxae; prosternellum distinct. Protibiae 0.58-0.68× as long as profemora. Calcar at apex of protibia longer than first protarsomere. Metasternum depressed in

male, almost flat in female, not grooved, laterally carinate. Elytra glabrous, base slightly concave, interstriae 1, 3 and 5 often strongly protruding forward; interstria 2 distinct only at apex; 5 and 7 (and sometimes 6) fused anteriorly to form a common humeral callus; 8 distinct after 1/3 of elytra; 9 forming external apical border of elytra. Apex of elytra rounded. Hindwings without basal sclerite.

Sternites III-IV very convex in female (Fig. 20B), depressed in male, laterally carinate forward; V-VI smooth, without notch; VII with transverse basal notch in female, without notch in male, with apical fovea. Gonocoxites with two membranous lateral lobes. Tegmen with parameres filiform, fused at base.

#### REMARKS

Comparison of lectotype of *M. brevisulcatus* with holotype of *M. dubius* revealed complete identity between these two taxa. They are therefore here synonymised and *M. dubius* is a junior subjective synonym of *M. brevisulcatus*.

#### *Microtrachelizus charlottae* Mantilleri, 2010

*Microtrachelizus charlottae* Mantilleri, 2010b: 153.

TYPE MATERIAL. — Perak, Malacca, Doherty, ♀ holotype (MNHN EC1454). — Sumatra (tabacs), A. Grouvelle 1909, ♀ paratype (MNHN EC2052).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Malaysia, Indonesia (Sumatra). See map (Fig. 15).

#### DESCRIPTION

See Mantilleri 2010b.

#### *Microtrachelizus contiguus* (Senna, 1893) (Figs 10B-D; 17G, H)

*Trachelizus contiguus* Senna, 1893b: 266.

*Microtrachelizus sternopilosus* Damoiseau, 1987: 56, n. syn.

*Microtrachelizus temporalis* Damoiseau, 1987: 56, n. syn.



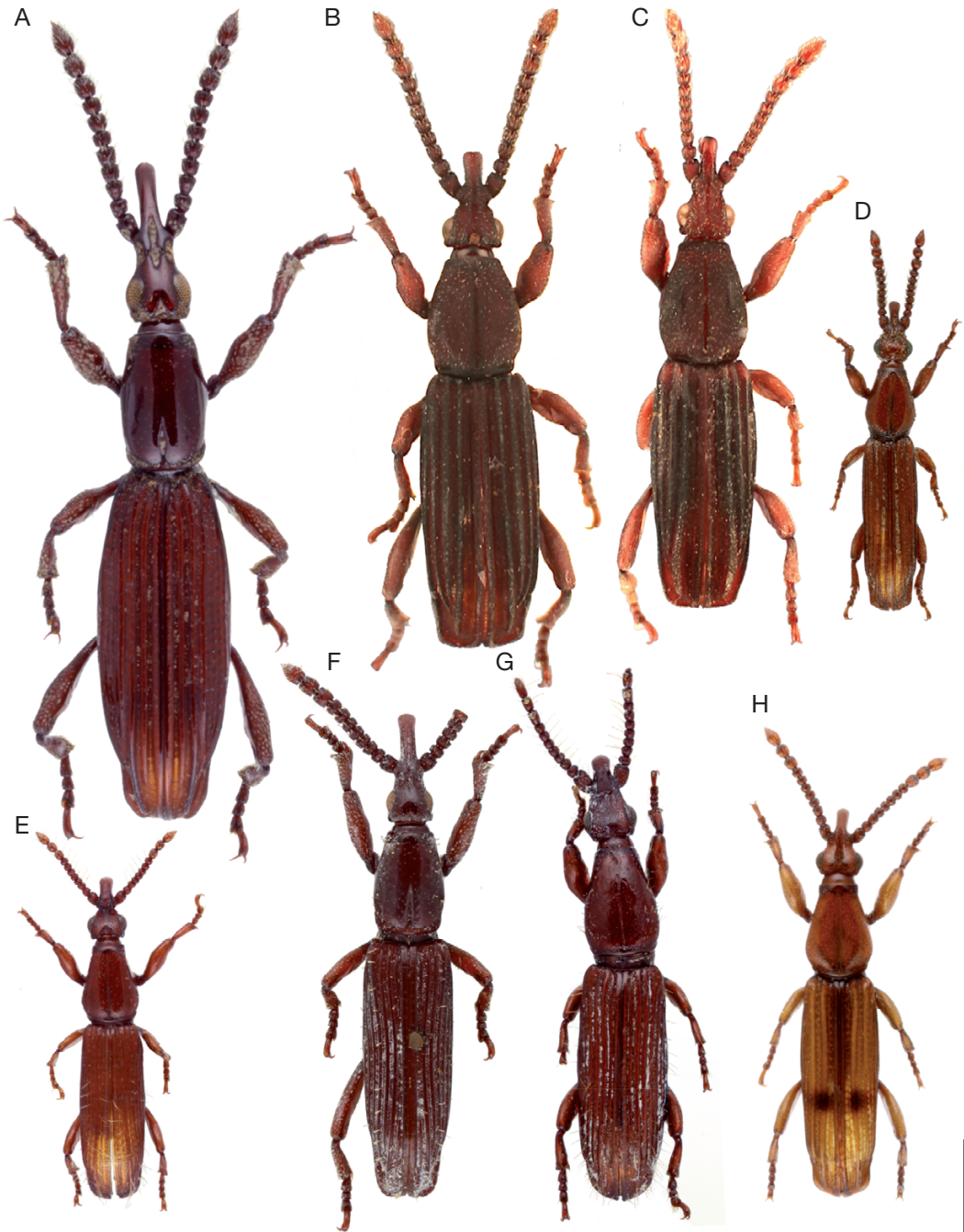


FIG. 9. — Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Howeius micropterus* Mantilleri, 2011, ♂ paratype; **B**, *Microtrachelizus accommodatus* Kleine, 1922, ♂ holotype; **C**, *M. fluxus* Kleine, 1923, ♀ holotype; **D**, *M. pubescens* Senna, 1893, ♀ lectotype; **E**, *M. monilicornis* Damoiseau, 1987, ♂ holotype; **F**, *M. costatus* Damoiseau, 1987, ♀ holotype; **G**, *M. enigmaticus* Mantilleri, 2007, ♂ holotype; **H**, *M. australicus* Mantilleri, 2011, ♀ paratype. Scale bar: 1 mm.



TYPE MATERIAL. — *Microtrachelizus contiguus*: Engano, Malacca, Modigliani, VI.1891, ♀ lectotype (MZUF) and 2 ♂♂ paralectotypes (MZUF, MSNG).

*Microtrachelizus sternopilosus*: Borneo, Sarawak, Gunong Matang, 120 m, 15.IX.1958, J. L. Gressitt, ♂ holotype (BPBM). — Sumatra, Palembang, ♂ paratype (MNHN EC2019).

*Microtrachelizus temporalis*: N. Guinea, Lemien, Berlinhafen, Biro 96, ♂ holotype (HNHM).

MATERIAL EXAMINED. — **India**. NE India, Assam, Bhalukpong, 27°02'N, 92°35'E, 150 m, 26.V-03.VI.2006, L. Dembicky leg., 1 ex. (NHMUK).

**Indonesia**. Lectotype and 2 paralectotypes of *M. contiguus*. — Sumatra, Palembang, 1 ex. (MZUF); ♂ paratype of *M. sternopilosus*. — N Sumatra, Medan, Bukit Lawang, 11-12.X.1990, leg. A. Riedel, 1 ex. (MZUF). — Sulawesi-Utara, Dumoga-Bone N.P., Clarke camp, lower montane forest, 1140 m, at light, IV.1985, 1 ex. (NHMUK). — Borneo, Sepilok For. Res., Sandakan Bay (NW), 1-10 m, Malaise trap, 27.X.1957, J. L. Gressitt, 1 ex. (BPBM). — New Guinea Neth., Bodem, 100 m, 11 km SE of Oerberfaren, 7-17.VII.1959, T. C. Maa, 1 ex. (BPBM).

**Malaysia**. W Malaysia, Kelantan, 50 km NE from Tanah Rata, Pustigar, 24.I.1995, lgt. S. Becvar, 1 ex. (MZUF). — Holotype of *M. sternopilosus*. — Malay Penin., Selangor, Bukit Kutu, H. M. Pendlebury, 1 ex. (NHMUK). — Malay Penin., 1 ex. (MNHN).

**Papua New Guinea**. New Guinea, Papua, W District, Oriomo Govt Sta., 26-28.X.1960, J. L. Gressitt, 1 ex. (BPBM). — New Guinea, NE, Karimui, S of Goroka, 1000 m, light trap, 5.VI.1961, J. L. Gressitt, 1 ex. (MNHN). — New Britain, Gazelle Pen., Bainings, St Paul's, 350 m, 7.IX.1955, J. L. Gressitt, 1 ex. (BPBM). — New Guinea, NE, Ambunti, Sepik R., 200 m, light trap, 9.V.1963, R. Straatman, 1 ex. (BPBM). — Holotype of *M. temporalis*.

**Philippines**. Luzon, Camarines Sur, Mt Isarog, 800 m, light trap, 25.IV.1965, H. M. Torrevillas, 1 ex. (MNHN). — Mindanao, Zamboanga del Norte, Gundawan, 1260-1350 m, light trap, 12.VII.1958, H. E. Milliron, 1 ex. (BPBM).

**Solomon Islands**. Guadalcanal, Suta-Gold ridge, Jouapau Mt, 1000 m, 29.VI.1956, J. L. Gressitt, 1 ex. (BPBM). — Kolombangara, 8.IX.1983, bred from *Terminalia calamansanai*, 2 ex. (NHMUK, MNHN).

**Thailand**. Tak Province, Umphang District, Song Bae Stream, 300 m, Thung Yai Wildlife Sanctuary, 15°28'N, 98°48'E, evergreen rain forest, 18-27.IV.1998, M. J. D. Brendell, 3 ex. (2 in NHMUK, 1 in MNHN).

**Vietnam**. Hòa Bình, Tonkin, A. de Cooman, 1 ex. (MNHN).

DISTRIBUTION. — India, Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, Thailand, Vietnam. See map (Fig. 19).

## REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.6-5.8 mm; width across humeral calli: 0.55-0.8 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 10B-D.

Head finely punctate, with basal median notch. Vertex and frons not grooved. Temples short, weakly protruding behind eyes. Metarostrum foveate; mesorostrum grooved; the base of prorostrum grooved. Prorostrum 0.48-0.58× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum shallow but well distinct. Antennal segment 3 conical; 4-8 subcylindrical, broader than long; 9-10 barrel-shaped; 11 1.4-1.9× longer than 10. Venter of head smooth, not or hardly grooved.

Pronotum shiny, finely punctate; longitudinal groove well distinct only at base. Prothorax foveate in front of procoxae in female, without fovea in male. Procoxae glabrous in female, strongly hairy in male. Prosternellum not distinct. Protibiae 0.52-0.59× as long as profemora. Calcar at apex of protibia hardly as long as first protarsomere. Metasternum grooved, laterally carinate, convex and glabrous in female, more depressed and hairy in male. Elytra glabrous, base slightly concave. Interstria 2 distinct from base to apex, sometimes slightly depressed in the middle; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 beginning after 1/3 of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV laterally carinate, not grooved, not depressed in female (Fig. 17H), depressed and with few setae on sternite III in male (Fig. 17G); V-VI with three basal notches; VII with basal notch and small apical fovea, strongly hairy at apex in male (Fig. 17G). Tergite VIII of female denticulate at apex. Gonocoxites with one membranous lateral lobe. Tegmen with parameres filiform, not fused.

## REMARKS

Comparison of the type series of *M. contiguus* with the holotype and paratype of *M. sternopilosus* and holotype of *M. temporalis* showed that these three names refer to the same species, and they are therefore here synonymised. *M. sternopilosus* and



FIG. 10. — Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Microtrachelizus beneficus* Kleine, 1925, ♂ lectotype; **B**, *M. contiguus* Senna, 1893, ♀ lectotype; **C**, *M. sternopilosus* Damoiseau, 1987, ♂ paratype; **D**, *M. temporalis* Damoiseau, 1987, ♂ holotype; **E**, *M. targionii* Senna, 1893, ♂ lectotype; **F**, *M. silvicola* Senna, 1902, ♀ lectotype; **G**, *M. pahanganus* Mantilleri, 2007, ♂ holotype; **H**, *M. borneensis* Damoiseau, 1987, ♂ holotype. Scale bar: 1 mm.

*M. temporalis* are considered as junior subjective synonyms of *M. contiguus*.

*Microtrachelizus coomani* Damoiseau, 1987  
(Figs 13C; 20C, D)

*Microtrachelizus coomani* Damoiseau, 1987: 56.

TYPE MATERIAL. — Tonkin, rég. de Hòa Bình, 1935, A. de Cooman, ♀ holotype (MNHN EC1996) and ♀ paratype (MNHN EC1997).

MATERIAL EXAMINED. — **Nepal.** Nepal, Chitwan NP, Saura, 23.V.1988, S. Bily leg., 1 ex. (NMPC).

**Vietnam.** See material type above.

DISTRIBUTION. — Nepal, Vietnam. See map (Fig. 15).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.7–4.3 mm; width across humeral calli: 0.55–0.65 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 13C.

Head (Fig. 20C) much broader than long, smooth, with basal notch, tomentous posteriorly. Vertex and frons not grooved. Temples very short, protruding behind eyes. Metarostrum foveate, grooved anteriorly, the groove reaching pronotum; pronotum as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum short, well distinct, tomentous. Antennal segment 3 conical, broader than long; 4–8 cylindrical, broader than long; 9–10 slightly globular; 11 1.67–1.70× longer than 10. Venter of head grooved.

Pronotum (Fig. 20C) shiny, microreticulate, with few sparse punctures, median groove distinct only at base. Prothorax without fovea in front of protruding conical procoxae; prosternellum distinct. Protibiae 0.66–0.77× as long as profemora. Calcar at apex of protibia much longer than first protarsomere. Metasternum slightly depressed, not grooved, laterally carinate. Elytra glabrous, base almost straight, interstriae 1, 3 and 5 protruding anteriorly. Interstriae shiny; 2 distinct only at apex; 4 distinct from base to apical declivity; 5 and 7 fused anteriorly to form a common humeral callus; 8 not reaching base; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed.

Sternites III–IV slightly depressed, smooth, laterally carinated only on anterior part; V–VI smooth, without notch; VII without basal notch, apex with fovea (Fig. 20D). Gonocoxites with two membranous lateral lobes.

*Microtrachelizus costatus* Damoiseau, 1987  
(Figs 9F; 25E)

*Microtrachelizus costatus* Damoiseau, 1987: 56.

*Microtrachelizus compactus* Mantilleri, 2010b: 157, n. syn.

TYPE MATERIAL. — *Microtrachelizus costatus*: Sumatra, Soekaranda, Dr. H. Dohrn S., ♀ holotype (MZPW). *Microtrachelizus compactus*: E Sumatra, Riau prov., Bukit Tigapuluh N. P., 0°50'S, 102°26'E, 18–25.I.2000, J. Bezděk leg., ♀ holotype (NMPC).

MATERIAL EXAMINED. — **Indonesia.** Holotype of *M. costatus*. — Holotype of *M. compactus*. — Aceh-Selatan, Babahrot, 100 m, VII–VIII.1983, J. Klapperich, 1 ♀ (MHNG).

DISTRIBUTION. — Indonesia (Sumatra). See map (Fig. 15).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.9–6.2 mm; width across humeral calli: 0.85–0.95 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 9F.

Head not punctate, with basal notch. Vertex and frons grooved or not. Temples short, not protruding behind eyes. Metarostrum, mesorostrum and the base of pronotum grooved. Pronotum 0.8× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segments 2–8 much broader than long; 3 conical; 4–8 cylindrical; 9–10 cylindrical; 11 1.8–1.9× longer than 10. Venter of head and metarostrum grooved.

Pronotum convex, microreticulate, with few squamulose setae, grooved only at base. Prothorax foveate in front of strongly bulging procoxae; prosternellum not distinct. Protibiae 0.58–0.69× as long as profemora. Calcar at apex of protibiae much longer than first protarsomere. Metasternum convex, grooved, laterally carinate. Elytra slightly concave at base, with few raised squamulose setae on odd interstriae. Interstria 2 distinct from base to



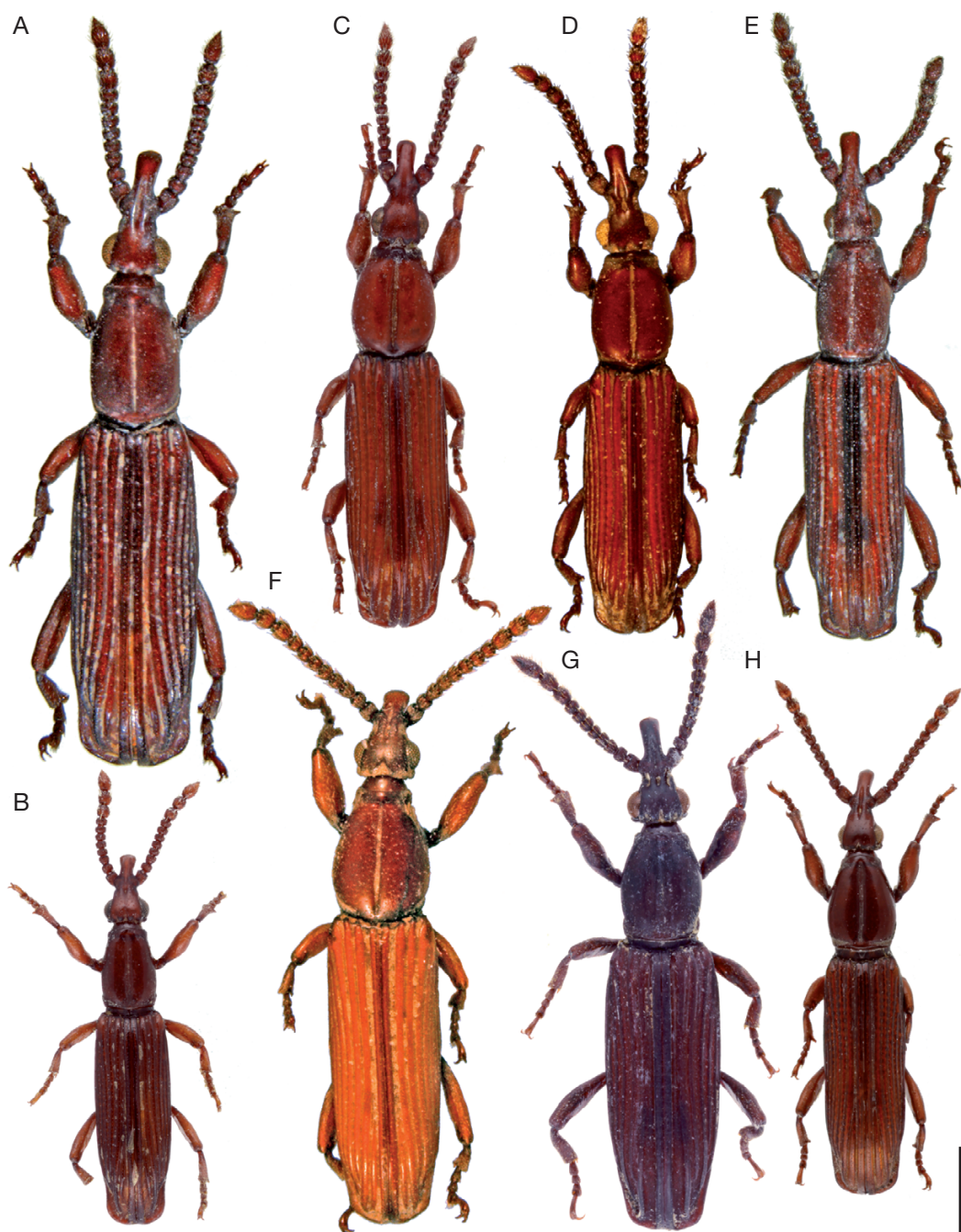


FIG. 11. — Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Microtrachelizus bhamoensis* (Senna, 1892), ♂ holotype; **B**, *M. apertus* Kleine, 1925, ♀ paralectotype; **C**, *M. occultus* Kleine, 1935, ♂ lectotype; **D**, *M. pseudobhamoensis* Mantilleri, 2007, ♂ holotype; **E**, *M. ghecuanus* (Senna, 1892), ♂ holotype; **F**, *M. poggii* Mantilleri, 2007, ♂ holotype; **G**, *M. reductus* Kleine, 1941, ♀ lectotype; **H**, *M. lepidus* Mantilleri, 2007, ♂ paratype. Scale bar: 1 mm.

apex but reduced in the middle; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before end of first half; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV convex, laterally carinate, with transverse depression between sternite III and IV; V-VI with very weak basal notches; VII with basal notch and large apical fovea. Tergite VIII of female strongly denticulate at apex. Gonocoxites with two membranous lateral lobes. Spermatheca appendiculate (Fig. 25E).

Male unknown.

#### REMARKS

Comparison of the holotype of *M. compactus* with the holotype of *M. costatus* showed these two names refer to the same species, the two specimens looking very similar externally and female genitalia (especially spermatheca) being identical. *Microtrachelizus compactus* is therefore considered as junior subjective synonym of *M. costatus*.

#### *Microtrachelizus cylindricornis* (Power, 1880) (Fig. 11G)

*Trachelizus cylindricornis* Power, 1880: 187.

*Microtrachelizus cylindricornis* – Senna 1893a: 316.

*Microtrachelizus reductus* Kleine, 1941: 228. Syn. Damoiseau 1987: 58.

TYPE MATERIAL. — *Microtrachelizus cylindricornis* (not examined): Sumatra, Datar, V.1877, ♀ holotype (RMNH). *Microtrachelizus reductus*: Tonkin, région de Hòa Bình, A. de Cooman 1934, ♀ lectotype (MNHN EC1977) and 1 ♂ paralectotype (MNHN EC2053).

MATERIAL EXAMINED. — **India.** NE India, Assam, Bhulukpong, 27°02'N, 92°35'E, 150 m, L. Dembicky leg., 26.V-03.VI.2006, 1 ex. (NHMUK).

**Indonesia.** Sumatra, 3 ex. (1 in MNHN, 2 in ZMUC). — Sumatra, Padang, E. Modigliani 1890, 2 ex. (MSNG). — North Sumatra, Kedah env., 19.IV.1998, lgt. V. Kabourek, 4 ex. (MZUF). — Mentawai, Si Oban, IV-VIII.1894, Modigliani, 1 ex. (MSNG). — Mentawai, Sipora, Sereinu, V-VI.1994, Modigliani, 1 ex. (MSNG). — Nias, 2 ex. (MNHN). — Sumatra, fort de Kock, E. Jacobson, 1 ex.

(NHMUK). — SE Kalimantan, 900 m, Kandungan district, Loksado 17 km NE, 15.XI.1997-15.I.1998, leg. St. Jakl, 1 ex. (IRSNB).

**Laos.** Laos C., Khammouan prov., Nakai env., 17°43'N, 105°09'E, 22.V-8.VI.2001, alt. 500-800 m, E. Jendek & O. Sausa leg., 1 ex. (MNHN).

**Malaysia.** Malaysia, Pahang dist., env. Cam. Highlands, Kampung Kuala Boh vill. env., 04°27.9'N, 101°34.8'E, 26.III-03.IV.2001, 850-1050 m, M. Strba leg., 1 ex. (coll. PH); Hulu Perak, Bangunan Camp, c/o Kampung Semelur (E shore lake Tasek-Temengor), 5°30'18"N, 101°24'16"E, 230 m, 9-12.VI.2009, J. Ng, 2 ex. (MZUF).

**Myanmar.** Carin Cheba, 900-1100 m, L. Fea, V-XII.1889, 1 ex. (MSNG).

**Thailand.** Yala province, Bang Lang National Park, 6°04'N, 101°11'E, dead tree, 18-20.X.1991, O. Martin leg., 1 ex. (ZMUC). — Chiang Mai, env. 10 km O Fang, 1460 m, Doi Anckhang, 20-23.V.1986, à la lumière, P. Schwendiger leg., 1 ex. (MHNG).

**Vietnam.** Tonkin, rég. de Hòa Bình, A. de Cooman 1929, 14 ex. (MNHN). — Lectotype and paralectotype of *M. reductus*; Tonkin, Hòa Bình, A. de Cooman, 2 ex. (NHMUK).

DISTRIBUTION. — India (Assam), Indonesia (Sumatra, Borneo), Laos, Malaysia, Myanmar, Thailand, Vietnam. See map (Fig. 16). The occurrence in south China (Sforzi & Bartolozzi 2004: 638) has not been verified but is highly probable.

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.6-7.9 mm; width across humeral calli: 0.8-1.2 mm. Reddish brown without darker postmedian blotch on elytra or blotch hardly distinct. Habitus: Figure 11G.

Head much broader than long, with three basal notches. Vertex and frons not grooved. Eyes bulging, temples very short, protruding behind eyes. Metarostrum deeply grooved, the groove reaching the base of prorostrum. Prorostrum 0.48-0.60× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum deep. Antennal segment 3 conical, not longer than broad; 4-8 cylindrical or hardly conical, broader than long; 9-10 almost cylindrical, slightly longer than or as long as broad; 11 1.6-2.0× longer than 10. Venter of head and metarostrum quite convex, dull, grooved.

Pronotum glabrous, dull, microreticulate, not punctate, longitudinally grooved. Prothorax foveate in front of bulging procoxae; prosternellum not distinct. Protibiae 0.62-0.72× as long as profemora. Calcar at apex of protibiae very strong, longer than



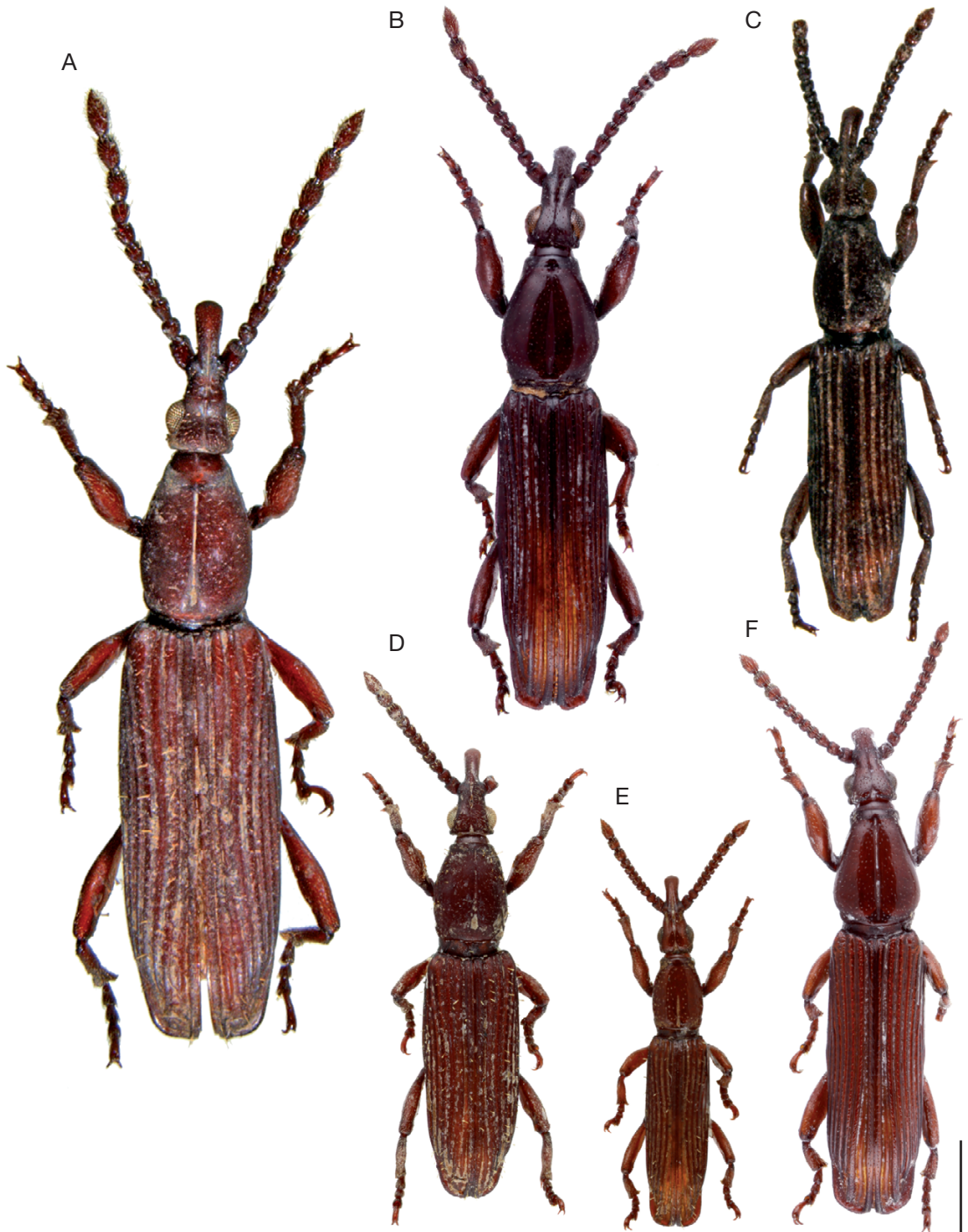


FIG. 12. — Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Microtrachelizus sirambeicus* Senna, 1902, ♂ holotype; **B**, *M. siamensis* Kleine, 1926, ♂; **C**, *M. tabaci* Senna, 1893, ♀ lectotype; **D**, *M. rudis* Kleine, 1937, ♀; **E**, *M. mentaweicus* Senna, 1898, ♂ holotype; **F**, *M. floreni* n. sp., ♂ holotype. Scale bar: 1 mm.

first protarsomere. Metasternum convex, grooved, laterally not carinate. Elytra glabrous, dull, microreticulate, concave at base. Interstriae 1, 3, 4 and 5 sometimes protruding anteriorly; interstria 2 missing or distinct only at apex; 3-9 well distinct, quite raised; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting before first half; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed. Hindwings with sclerotised basal sclerite.

Sternites III-IV depressed in male, convex and grooved in female, anteriorly carinate; V-VI with two or three basal notches; VII with basal notch and apical fovea. Gonocoxites with two membranous lateral lobes. Tegmen with parameres filiform, fused at base.

### *Microtrachelizus elephas* Mantilleri, 2011

*Microtrachelizus elephas* Mantilleri, 2011b: 17.

TYPE MATERIAL. — Sumatra, Aceh-Selatan, Babahrot, 100 m, VII-VIII.1983, J. Klapperich, ♀ holotype (MHNG).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Indonesia (Sumatra). See map (Fig. 18).

#### DESCRIPTION

See Mantilleri 2011b.

### *Microtrachelizus enigmaticus* Mantilleri, 2007 (Fig. 9G)

*Microtrachelizus enigmaticus* Mantilleri, 2007b: 15.

TYPE MATERIAL. — W Malaysia, Kelantan, 50 km from Tanah Rata, Pustigar, 24.I.1995, lgt. S. Becvar, ♂ holotype (MZUF).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Malaysia. See map (Fig. 18).

#### DESCRIPTION

See Mantilleri 2007b. Easily recognisable, this species is not redescribed here. Habitus: Figure 9G.

### *Microtrachelizus floreni* n. sp. (Figs 12F; 25A-D)

HOLOTYPE. — [Malaysia, Sabah], Mesilau, My, Sych134, 6°2.821'N, 116°35.662'E, *Syzigium chlorantha*, 27.IX.2006, A. Floren, ♂ (MNHN EC2158).

PARATYPE. — Same data as holotype, ♀ (MZUF).

DISTRIBUTION. — Malaysia (Borneo). Presently known only from the type locality, on the eastern slope of Mount Kinabalu (Fig. 26).

ETYMOLOGY. — This species is dedicated to Andreas Floren who collected this interesting taxon with fogging apparatus in rain forests of Malaysia.

DIAGNOSIS. — Body reddish brown; vertex grooved; pronotal groove distinct over full length; prothorax and procoxae of male hairy; elytra glabrous, interstriae not strongly elevated, 2 missing at base, 6 and 8 distinct; sternite VII with well distinct apical fovea; parameres fused.

#### DESCRIPTION

Length from apex of rostrum to apex of elytra: 6.0-6.2 mm; width across humeral calli: 0.9-1.0 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 12F.

Head (Fig. 25A) finely punctate, with basal median notch. Frons, and sometimes vertex, weakly grooved. Eyes large. Temples well distinct slightly protruding behind eyes. Metarostrum, mesorostrum and the base of prorostrum grooved; prorostrum 0.45-0.55× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 3 conical, as long as broad; 4-8 cylindrical, broader than long; 9-10 quite short; 11 1.6-1.7× longer than 10. Venter of head and metarostrum grooved.

Pronotum microreticulate, punctate, longitudinal groove deep from base to apex. Prothorax foveate in front of procoxae and hairy in male; prosternellum not distinct. Procoxae hairy in male. Protibiae 0.5-0.6× as long as profemora. Calcar at apex of protibiae as long as first protarsomere. Metasternum grooved, laterally not carinate. Elytra concave at base, glabrous, interstriae shiny. Interstria 2 distinct only at apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before end of first half of elytra; 9 forming external apical border of

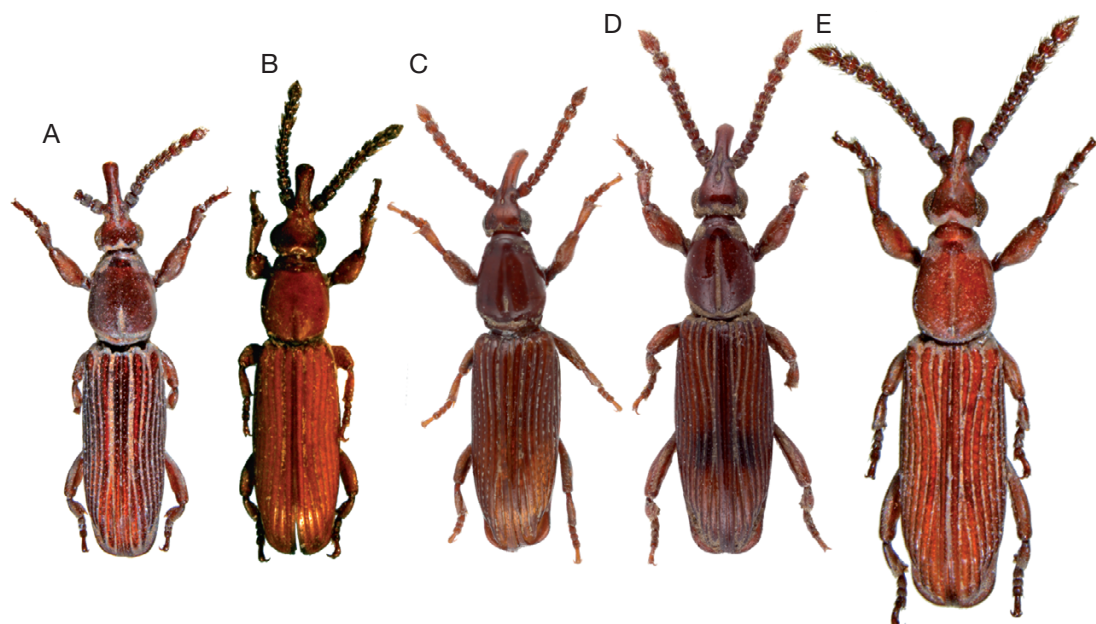


FIG. 13. — Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Microtrachelizus brevisulcatus* Senna, 1894, ♀ lectotype; **B**, *M. dubius* Kleine, 1935, ♂ holotype; **C**, *M. coomani* Damoiseau, 1987, ♀ holotype; **D**, *M. lyratus* (Perroud & Montrouzier, 1865), ♂ paralectotype; **E**, *M. montrouzieri* Senna, 1903, ♂ holotype. Scale bar: 1 mm.

elytra. Apex of elytra rimmed, slightly flattened. Hindwings with weakly sclerotised basal sclerite.

Sternites III–IV convex in female, slightly depressed in male (Fig. 25B), laterally carinate; V–VI with basal notches; VII (Fig. 25B, C) with basal notch and apical fovea. Tegmen (Fig. 25D) with parameres filiform, completely fused. Gonocoxites with two small membranous lateral lobes.

*Microtrachelizus fractus* Kleine, 1924  
(Figs 14B; 17I)

*Microtrachelizus fractus* Kleine, 1924: 104.

TYPE MATERIAL. — Haut Uélé, Watsa, 1922, L. Burgeon, ♂ holotype (MRAC).

MATERIAL EXAMINED. — **Cameroon**. 15 km E Ebolowa, Keeke, secondary forest with cocoa plantation, at light, 5.I.1978, 1 ♂ (MZUF).

**Congo**. 1 ♀ (MNHN).

**Democratic Republic of the Congo**. Holotype.

**Gabon**. Riv. Noya, sous écorces d'attegoué, II.1949, J. de

Muizon, 1 ♂ (MNHN). — Parco dell' Ivindo, A. Susini, 1 ♀ (MNHN).

DISTRIBUTION. — Cameroon, Congo, Democratic Republic of the Congo, Gabon (new record). See map (Fig. 27).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.9–5.4 mm; width across humeral calli: 0.7–0.8 mm. Reddish brown without darker postmedian blotch on elytra or blotch not well distinct. Habitus: Figure 14B.

Head slightly punctate, with basal notch. Vertex and frons grooved. Temples short, weakly protruding behind eyes. Metarostrum and mesorostrum deeply longitudinally grooved; prorostrum smooth, 0.50–0.63× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum deep. Antennal segment 3 conical, broader than long; 4–8 cylindrical, broader than long; 9–10 barrel-shaped, longer than broad; 11 1.65–1.88× longer than 10. Venter of head, metarostrum and mesorostrum grooved.

Pronotum slightly convex, weakly punctate, microreticulate, longitudinally grooved. Prothorax a bit depressed in front of protruding procoxae; prosternellum hardly distinct. Protibiae  $0.7\text{--}0.8\times$  as long as profemora. Calcar at apex of protibia as long as or longer than first protarsomere. Metasternum with deep and shallow median groove, laterally not carinate. Elytra glabrous, base straight or weakly concave. Interstria 2 distinct at base and apex, attenuate in the middle; 4 distinct from base to apical declivity; 5 and 7 fused anteriorly to form a common humeral callus; 6 not reaching base; 8 starting just before first half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed. Hindwings without basal sclerite.

Sternites III–IV strongly depressed in male, hardly depressed and very weakly grooved in female, laterally not carinate; V–VI with three shallow basal notches; VII with basal notch, without apical fovea (Fig. 17I). Gonocoxites with one membranous lateral lobe. Tegmen with parameres filiform, not fused.

*Microtrachelizus ghecuanus* (Senna, 1892)  
(Figs 11E; 17L)

*Trachelizus ghecuanus* Senna, 1892: 457.

*Microtrachelizus ghecuanus* – Senna 1893a: 316.

TYPE MATERIAL. — Carin Ghecu, 1300–1400 m, L. Fea, V.1888, typus, ♂ holotype (MSNG).

MATERIAL EXAMINED. — **Laos.** Laos centr., Bolikhamsai prov., Ban Nape, Kaew Nua Pass, 19.IV–01.V.1999, alt.  $600 \pm 100$  m,  $18^{\circ}22'N$ ,  $105^{\circ}09'E$ , Strba & Hergovits leg., 1 ex. (coll. PH). — Ban Van Eue, 13–15.IV.1965, J. L. Gressitt, 1 ex. (BPBM).

**Myanmar.** Holotype. — H<sup>tc</sup> Birmanie, mines des Rubis, 1200–2300 m., Doherty 1890, 2 ex. (MNHN); Birmah, Ruby Mines, Doherty, 1 ex. (NHMUK).

DISTRIBUTION. — Laos, Myanmar. See map (Fig. 15).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.7–6.0 mm; width across humeral calli: 0.7–0.9 mm. Reddish brown with darker postmedian blotch on elytra; first elytral interstria sometimes darker. Habitus: Figure 11E.

Head not punctate, with basal notch. Vertex and frons grooved. Temples short, protruding behind eyes. Metarostrum, mesorostrum and the base of prorostrum grooved; prorostrum  $0.54\text{--}0.75\times$  as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 2–8 broader than long; 3 conical; 4–8 cylindrical; 9–10 barrel-shaped; 11  $1.6\text{--}1.7\times$  longer than 10. Venter of head, metarostrum and mesorostrum grooved.

Pronotum microreticulate, with few very fine punctures, longitudinally grooved. Prothorax depressed in front of procoxae, without fovea; prosternellum not distinct, depressed. Protibiae  $0.6\text{--}0.7\times$  as long as profemora. Calcar at apex of protibia as long as or longer than first protarsomere. Metasternum longitudinally grooved, laterally carinate. Elytra glabrous, base slightly concave. Interstria 2 distinct only at apex; 4 distinct from base to apical declivity; 5 sometimes fused to 6 and 7 to form a common humeral callus; 8 distinct only on posterior half; 9 forming external apical border of elytra. Apex of elytra rimmed. Hindwings with weakly sclerotised basal sclerite.

Sternites III–IV with long fine hairs, more depressed in male than in female, without well-distinct lateral carina (Fig. 17L); V–VI glabrous, with basal notches; VII quite hairy, with basal notch and weak apical fovea. Tegmen with parameres filiform, not fused.

*Microtrachelizus blavaci* Mantilleri, 2010

*Microtrachelizus blavaci* Mantilleri, 2010b: 157.

TYPE MATERIAL. — Thailand, 1–12.III.1996, Chumphon prov., Pha To env.,  $9^{\circ}48'N$ ,  $98^{\circ}47'E$ , P. Prudek leg., ♂ holotype (MNHN EC1453), ♀ paratype (MNHN EC2056) and 2 ♂♂ paratypes (coll. PH).

MATERIAL EXAMINED. — **Thailand.** Holotype and 3 ♂♂ paratypes. — Chiang Mai, Fang, 500 m, found in dead tree, 15.IV.1958, T. C. Maa, 1 ♂ (BPBM).

DISTRIBUTION. — Thailand. See map (Fig. 19).

DESCRIPTION

See Mantilleri 2010b.





FIG. 14. — African Hoplopisthiini Senna & Calabresi, 1919, habitus: **A**, *Parapisthius suturalis* (Damoiseau, 1961) n. comb., ♂ holotype; **B**, *Microtrachelizus fractus* Kleine, 1924, ♂; **C**, *M. imbecillus* Kleine, 1926, ♂ holotype; **D**, *M. rectestriatus* (Fairmaire, 1897), ♀ holotype; **E**, *M. aethiopicus* Calabresi, ♀ lectotype; **F**, *M. captiosus* Kleine, 1924, ♀ syntype; **G**, *M. copulatus* Kleine, 1924, ♂ syntype; **H**, *M. minutus* (Kleine, 1922), ♂ lectotype. Scale bar: 1 mm.

*Microtrachelizus imbecillus* Kleine, 1926  
(Figs 14C; 17J, K)

TYPE MATERIAL. — Haut Uelé, Watsa, 1922, L. Burgeon, ♂ holotype (MRAC).

*Microtrachelizus imbecillus* Kleine, 1926: 365.

MATERIAL EXAMINED. — See type material above.



DISTRIBUTION. — Democratic Republic of the Congo. See map (Fig. 27).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.3 mm; width across humeral calli: 0.5 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 14C.

Head (Fig. 17K) quite convex, finely punctate, without basal notch. Vertex and frons not grooved. Temples long but shorter than length of eyes, not protruding behind eyes. Metarostrum weakly grooved; mesorostrum grooved; pro-rostrum 0.30× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum missing. Antennal segments 2–8 broader than long; 3 conical; 4–8 cylindrical; 11 1.8× longer than 10. Venter of head and metarostrum convex, not grooved.

Pronotum (Fig. 17K) much larger at base than at apex, deeply punctate, longitudinally grooved. Prothorax without fovea in front of procoxae; prosternellum not distinct. Protibiae 0.55× as long as profemora. Calcar at apex of protibia hardly as long as first protarsomere. Metasternum longitudinally grooved, lateral carinae hardly distinct. Elytra with long fine hairs, base concave. Interstria 2 distinct only at apex; 4 distinct from base to apex; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before first half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed.

Sternites III–IV with large punctures, a bit depressed and longitudinally grooved, laterally weakly carinate on anterior part; V–VI with three basal notches; VII almost glabrous, with basal notch and apical fovea (Fig. 17J).

#### *Microtrachelizus inexpectatus* Mantillieri, 2007

*Microtrachelizus inexpectatus* Mantillieri, 2007c: 6.

TYPE MATERIAL. — Malacca, ♀ holotype (MZUF).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Malaysia. See map (Fig. 18).

#### DESCRIPTION

See Mantillieri 2007c; as no additional material was examined to complete the description, this species is not redescribed here.

#### *Microtrachelizus lepidus* Mantillieri, 2007 (Fig. 11H)

*Microtrachelizus lepidus* Mantillieri, 2007b: 16.

TYPE MATERIAL. — W Sumatra, Bukittinggi, lake Maninjau, 800 m, 9.IV.1998, lgt. Vit Kabourek, ♂ holotype (MZUF). — Mentawai, Si-Oban, IV–VIII.1894, E. Modigliani, 1 ♂ and 1 ♀ paratypes (MSNG). — Sumatra, Si-Rambé, XII.1890–III.1891, E. Modigliani, 2 ♀♀ paratypes (MSNG), 1 ♂ (MNHN EC2018) and 1 ♀ paratypes (MNHN EC2057).

MATERIAL EXAMINED. — India. Andamans, Roepstorff, 1 ex. (NHMUK).

Indonesia. See type material above.

Malaysia. Hulu Perak, Bangunan Camp c/o Kampung Semelur (E shore lake Tasek-Temengor), 5°30'18"N, 101°26'16"E, 230 m, 29.VI–4.VII.2008, L. Bartolozzi, G. Mazza, F. Cianferoni, F. Fabiano, 1 ♀ (MZUF). — British N Borneo, Kalabakan, 1M. V. light trap, 0–19. XI.1958, L. W. Quate & T. C. Maa, 1 ♂ (BPBM). Thailand. Yala province, Bang Lang National Park, 6°04'N, 101°11'E, dead tree, 18–20.X.1991, O. Martin leg., 4 ex. (ZMUC). — Chiang Mai, Fang, 12–19.IV.1958, T. C. Maa, 1 ♀ (BPBM).

DISTRIBUTION. — India (Andamans Islands), Indonesia (Sumatra), Malaysia, Thailand. See map (Fig. 19).

#### DESCRIPTION

See Mantillieri 2007b. Habitus: Figure 11H.

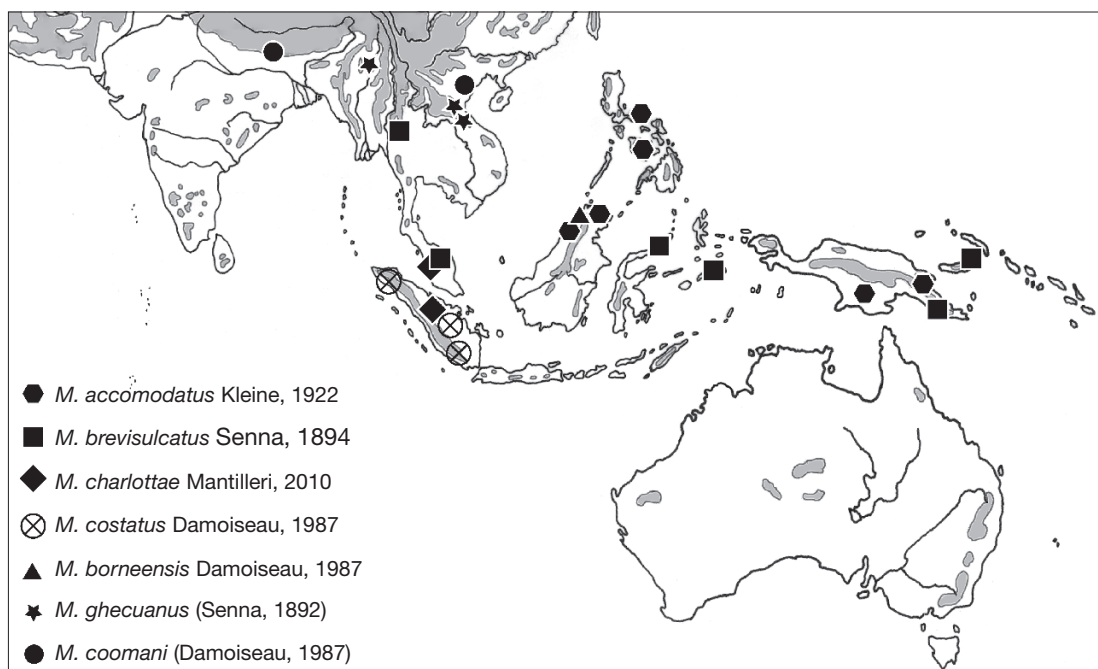
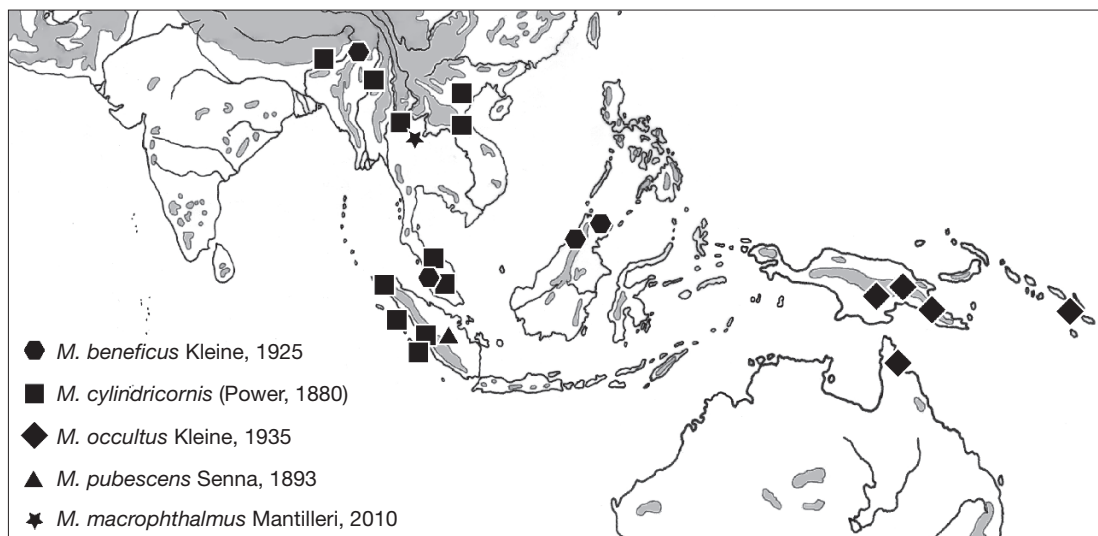
#### *Microtrachelizus lyratus* (Perroud & Montrouzier, 1865) (Figs 13D; 23)

*Trachelizus lyratus* Perroud & Montrouzier, 1865: 139.

*Microtrachelizus lyratus* – Senna 1893a: 316.

TYPE MATERIAL. — Kanala, ♀ lectotype (IRSNB) and ♂ paralectotype (MNHN EC2073). — Île des Pins, ♂ paralectotype (IRSNB).

MATERIAL EXAMINED. — New Caledonia. N. Caled., 1 ex. (MNHN); N. Calédonie, 1 ex. (MNHN); Nouv.

FIG. 15. — Distribution map of *Microtrachelizus* spp.FIG. 16. — Distribution map of *Microtrachelizus* spp.

Calédonie, 1 ex. (MNHN); N. Calédonie, ex. musao L. Fairmaire 1893, 1 ex. (MNHN); New Caledonia, 1 ex. (NHMUK). — Koumac, Grande Grotte, 21.II.2006, 80 m, Mauro Daccordi leg., 1 ex. (MZUF). — New Cale-

donia, South province, Sarramea, 27.XII.2006-25.I.2007, Ivo Jenis leg., 5 ex. (2 in coll. PH, 3 in MNHN). — La Foa, S. R. F. de Pocquereux, under bark of young dead fallen tree, 10.XI.2007, T. Théry leg., 8 ex. (coll. TT).

DISTRIBUTION. — New Caledonia. See map (Fig. 22).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.8–4.8 mm; width across humeral calli: 0.55–0.7 mm. Reddish brown with darker postmedian blotch on elytra. Habitus: Figure 13D.

Head (Fig. 23A) convex, smooth, weakly notched at base, slightly tomentous posteriorly, much broader than long. Vertex and frons not grooved. Temples short, protruding behind eyes. Metarostrum foveate; mesorostrum and the base of prorostrum grooved; prorostrum 0.64–1.15× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum hardly distinct. Antennal segment 3 broader than long, conical; 4–8 broader than long, cylindrical; 9–10 slightly globulous; 11 1.8–2.1× longer than 10. Venter of head and metarostrum grooved.

Pronotum (Fig. 23A) sparsely punctate, longitudinally grooved. Prothorax (Fig. 23B) foveate, hairy in male in front of bulging procoxae, glabrous in female; prosternellum distinct. Protibiae 0.6–0.7× as long as profemora. Calcar at apex of protibia almost as long as two first protarsomeres (Fig. 23C). Metasternum depressed, not grooved, laterally not carinate. Elytra concave at base. Interstriae not projecting forward. Interstria 2 distinct at base and apex, not distinct in the middle; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 not reaching base of elytra; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed. Hindwings without basal sclerite.

Sternites III–IV more depressed in male (Fig. 23D) than in female, not grooved, laterally not carinate; V–VI without basal notch; VII without basal notch, with large shallow apical fovea. Tergite VIII of female denticulate at apex. Gonocoxites (Fig. 23I) with two membranous lateral lobes. Spermatheca: Figure 23H. Tegmen (Fig. 23F) with parameres filiform, fused at base. Penis: Figure 23E. Spiculum gastrale: Figure 23G

#### *Microtrachelizus macrophthalmus*

Mantilleri, 2010

*Microtrachelizus macrophthalmus* Mantilleri, 2010b: 158.

TYPE MATERIAL. — NW Thailand, 23.IV–7.X.1996, Chiang Mai prov., Ban San Pakia, 1700 m, Sv. Bílý leg., ♂ holotype (NMPC).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Thailand. See map (Fig. 16).

#### DESCRIPTION

See Mantilleri 2010b.

#### *Microtrachelizus mentaweicus* Senna, 1898 (Fig. 12E)

*Microtrachelizus mentaweicus* Senna, 1898: 236.

TYPE MATERIAL. — Mentawai, Sipora, Sereinu, V–VI.1894, Modigliani, ♂ holotype (MSNG).

MATERIAL EXAMINED. — **Indonesia.** Holotype.

**Malaysia.** Perak, Doherty, 1 ex. (MNHN). — Malay Penin., Selangor, Keppong, ex galleries of *Xyleborus* sp. in *Shorea bracteolata*, 23.XI.1935, 1 ex. (NHMUK).

**Philippines.** Misamis Or., Dinawihan Gingoog, 26 km E of Gingoog City, 100–300 m, 22.VIII.1965, L. Torrevillas, 1 ex. (BPBM).

DISTRIBUTION. — Indonesia, Malaysia, Philippines. See map (Fig. 21).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.3–5.3 mm; width across humeral calli: 0.6–0.8 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 12E.

Head punctate, with deep basal notch. Vertex and frons finely grooved, groove sometimes not distinct on frons. Temples well distinct, not protruding behind eyes. Metarostrum quite deeply grooved; mesorostrum and the base of prorostrum grooved; prorostrum 0.53–0.67× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum deep. Antennal segments 2–8 broader than long; 3 conical; 4–8 cylindrical; 9–10 cylindrical, as long as broad; 11 1.7–1.9× longer than 10. Venter of head, metarostrum and mesorostrum grooved.

Pronotum microreticulate, quite coarsely punctate, with raised squamulose setae; longitudinal groove deep at base and vanishing forward. Prothorax foveate in front of procoxae; prosternellum not distinct.

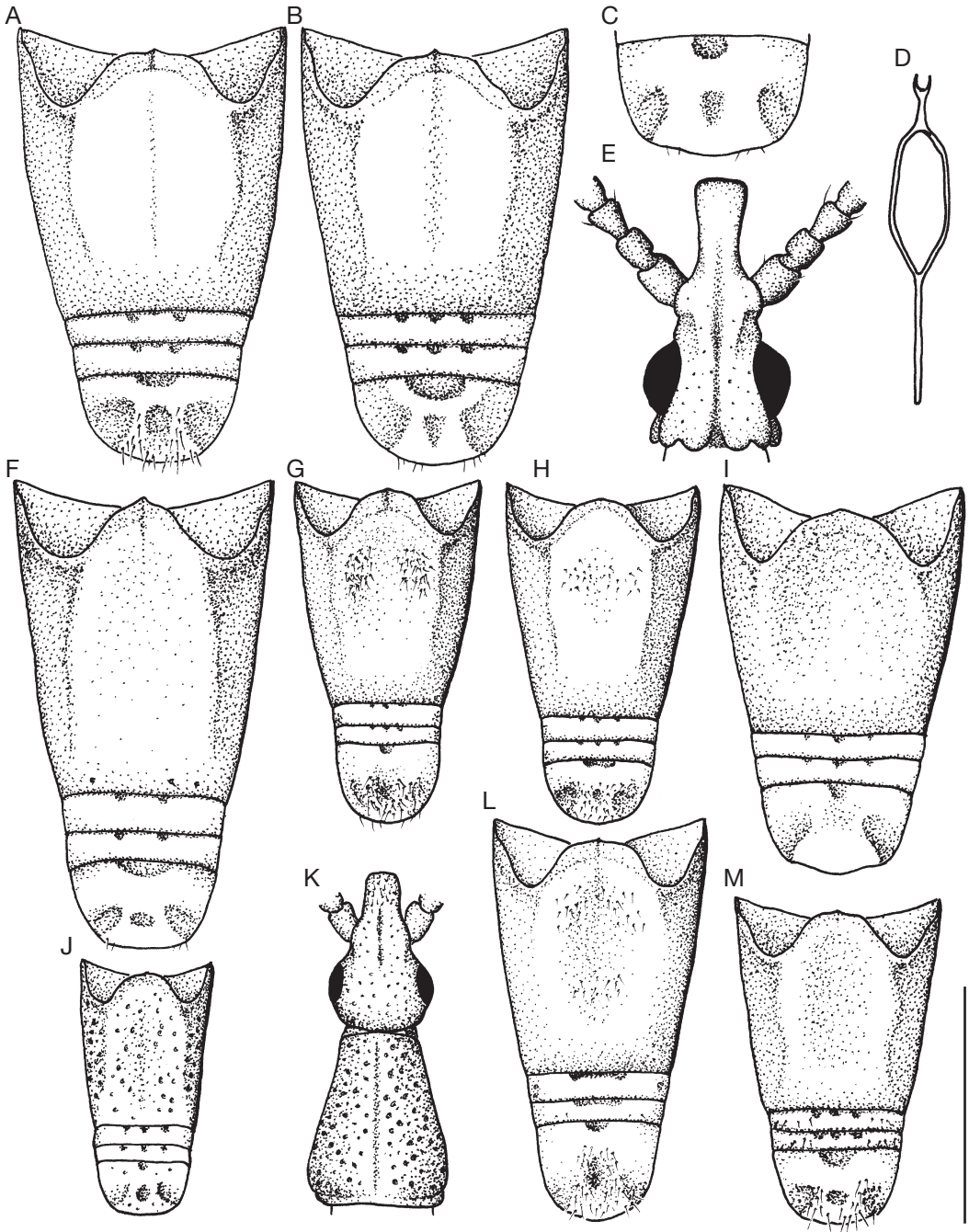


FIG. 17. — **A**, *Microtrachelizus beneficus* Kleine, 1925, abdomen of female; **B–D**, *M. bhamoensis* (Senna, 1892); **B**, abdomen of female; **C**, sternite VII of male; **D**, tegmen; **E, F**, *M. borneensis* Damoiseau, 1987, male, head (**E**) and abdomen (**F**); **G, H**, *M. contiguus* (Senna, 1893), abdomen of male (**G**) and female (**H**); **I**, *M. fractus* Kleine, 1924, abdomen of male; **J, K**, *M. imbecillus* Kleine, 1926, ♂ holotype, abdomen (**J**), head and pronotum (**K**); **L**, *M. ghecuanus* (Senna, 1892), abdomen of ♂ holotype; **M**, *M. plenicoatus* Damoiseau, 1987, abdomen of ♂ holotype. Scale bar: 1 mm.

Protibiae 0.6–0.7× as long as profemora. Calcar at apex of protibia as long as first protarsomere. Metasternum longitudinally grooved, laterally weakly carinate, with squamulose setae in front of metacoxae in male. Elytra concave at base, interstriae not projecting anteriorly; odd interstriae with raised squamulose setae. Interstria 2 distinct at base and apex, not distinct in the middle; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before first half of elytra; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed.

Sternites III–IV depressed in male, flat and grooved in female, laterally carinate; V–VI with two basal notches; VII with large basal notch, apical fovea crescent-shaped; apex of sternite VII hairy in male. Tergite VIII of female denticulate at apex. Gonocoxites with one membranous lateral lobe. Tegmen with parameres filiform, not fused.

*Microtrachelizus monilicornis* Damoiseau, 1987  
(Figs 9E; 24A–C)

*Microtrachelizus monilicornis* Damoiseau, 1987: 57.

TYPE MATERIAL. — Moluques, Ternate, Raffray & Maindron 1878, ♂ holotype (MNHN EC1995).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Indonesia (Moluccas). See map (Fig. 22).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.85 mm; width across humeral calli: 0.55 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figures 9E; 24A.

Head (Fig. 24A) punctate, with three basal notches (median notch very large). Vertex and frons not grooved. Temples well distinct, hardly protruding behind eyes. Metarostrum grooved, strongly raised (Fig. 24B); mesorostrum and prorostrum punctate; prorostrum 0.45× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum deep. Inner side of antennal segments 3–8 with very long setae; 3 conical; 4–8 cylindrical, broader than long; 9–10 almost as long as broad; 11 1.55×

longer than 10, pointed at apex. Venter of head and metarostrum smooth, not grooved.

Pronotum (Fig. 24A) shiny, punctate, wider at base than at apex, longitudinally grooved, with quite thick setae. Prothorax foveate in front of procoxae; prosternellum not distinct. Protibiae 0.55× as long as profemora. Calcar at apex of protibia as long as first protarsomere. Metasternum flattened, grooved, laterally not carinate. Elytra (Fig. 24A) concave at base, with long fine setae, especially at apex. Interstria 2 distinct from base to apex but narrower in the middle; 3 well distinct, especially at apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting before first half of elytra; 9 forming external apical border of elytra. Apex of elytra not rimmed, each elytra pointed at apex.

Sternites III–IV (Fig. 24C) slightly depressed, laterally carinate; V–VI with two paramedian basal notches; VII with very large and deep basal notch, latero-apically with two depressions, without apical fovea. Tegmen with parameres reduced, filiform, not fused.

Female unknown.

*Microtrachelizus montrouzieri* Senna, 1903  
(Fig. 13E)

*Microtrachelizus montrouzieri* Senna, 1903: 167.

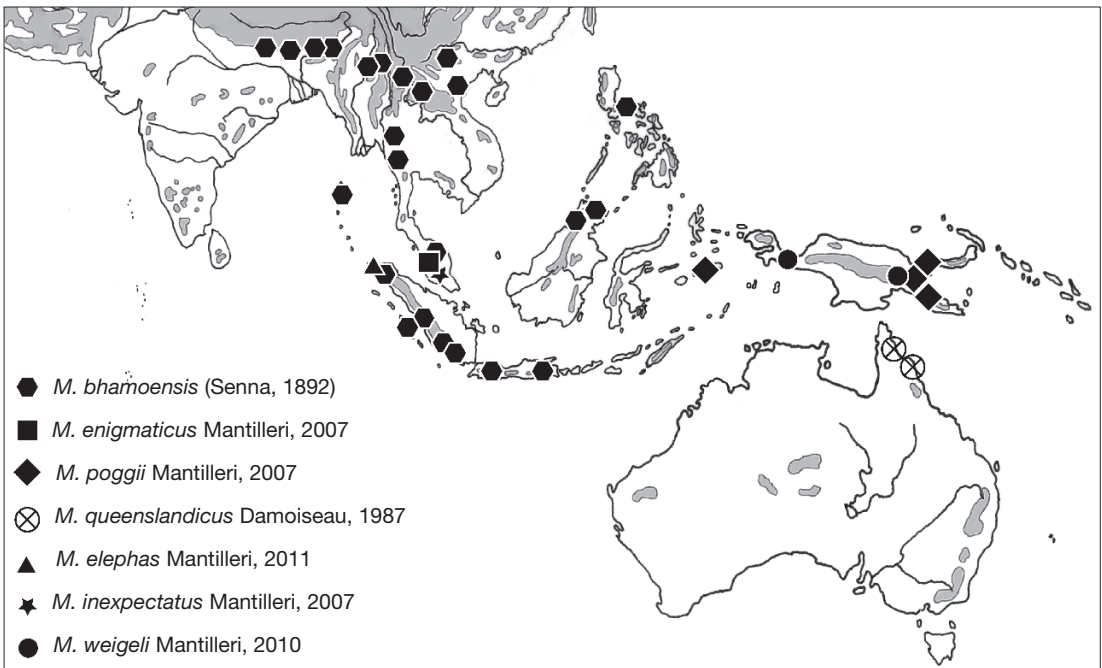
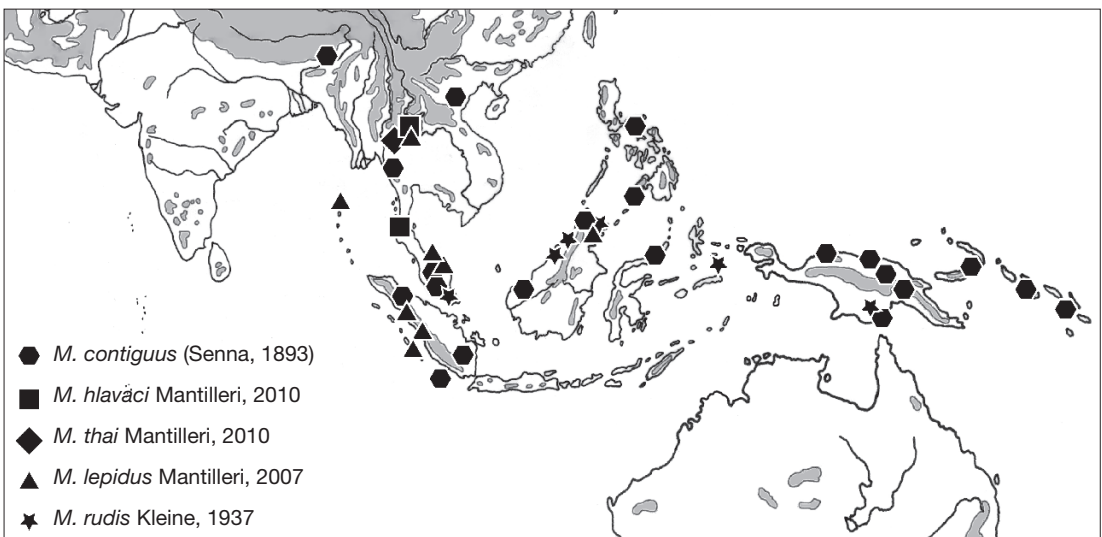
*Microtrachelizus laevis* Damoiseau, 1987: 56. Syn. Mantillieri 2011c: 98.

TYPE MATERIAL. — *Microtrachelizus montrouzieri*: Sumatra, Padang, 1890, E. Modigliani, ♂ holotype (MSNG). *Microtrachelizus laevis*: Mackay, ♂ holotype (SAMA).

MATERIAL EXAMINED. — **Australia**. Holotype of *M. laevis*. — Cairns, Qld., XI.1947, J. G. Brooks, 1 ex. (MNHN). — Boar Pkt., N. Q., 1 ex. (NHMUK). — Whitfield, Cairns, N. Q., 2100', 27.X.1971, at light, 1 ex. (NHMUK). — N. Qld, Mt Formartine South, 10 km N Kuranda, 700 m, *Pyrethrum* trees and logs, 23.XI.1990, Monteith & Thompson, 1 ex. (QMB). — Qld, Mt Glorious State Forest, subtropical rainforest, *Argyrodendron actinophyllum* Edlin, 27.II–6.III.1986, Y. Basset, 1 ex., (ANIC).

**Indonesia**. Holotype. — Fort de Kock (Sumatra), 920 m, 1926, leg. E. Jacobson, 1 ex. (MNHN). — Sumatra, Palembang, 2 ex. (MNHN). — Lombok, Sapat 2000',



FIG. 18. — Distribution map of *Microtrachelizus* spp.FIG. 19. — Distribution map of *Microtrachelizus* spp.

IV.1896, H. Fruhstorfer, 1 ex. (MNHN). — Sumatra, Nias, German Mission, 1 ex. (NHMUK). — Sulawesi Utara, Dumoga-Bone NP, 200 m, lowland forest, X.1985, 1 ex. (NHMUK). — Java, “Bajoekidoel”, 450-700 m,

12.XI.1931, F. C. Drescher, G. Raoeng, 1 ex. (MZB). **Malaysia.** Sarawak, Kapit dist., Sebong, Baleh riv., 9-21. III.1994, S. Bily leg., 1 ex. (NMPC). **Papua New Guinea.** Papua, Kokoda, light trap, 28-29.

III.1956, J. L. Gressitt, 1 ex. (BPBM). — New Ireland (SW), ridge above “Camp Bishop”, 15 km up Kait R., 250 m, 13.VII.1956, J. L. Gressitt, 1 ex. (BPBM).

**Thailand.** Yala province, Bang Lang National Park, 6°04'N, 101°11'E, dead tree, 18-20.X.1991, O. Martin leg., 1 ex. (ZMUC).

**DISTRIBUTION.** — Australia, Indonesia, Malaysia, Papua New Guinea, Thailand. See map (Fig. 21).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.4-5.1 mm; width across humeral calli: 0.6-0.8 mm. Reddish brown without darker postmedian blotch on elytra or blotch hardly distinct. Habitus: Figure 13E.

Head hardly punctate, deeply notched at base, tomentous posteriorly. Vertex and frons grooved or not. Temples very short, protruding behind eyes. Metarostrum with large fovea; mesorostrum grooved; prorostrum 0.57-0.62× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum weak. Antennal segments 2-8 broader than long; 2 cylindrical; 3 conical; 4-8 subconical; 9-10 barrel-shaped; 11 1.7-1.8× longer than 10. Venter of head dull with weak median groove.

Pronotum shiny, microreticulate, hardly punctate, longitudinally grooved. Prothorax foveate in front of procoxae; prosternellum distinct. Protibiae 0.6-0.8× as long as profemora. Calcar at apex of protibia much longer than first protarsomere. Metasternum slightly depressed, laterally carinate, median groove broad but shallow. Elytra glabrous, base straight. Interstriae shiny, very convex, odd ones projecting anteriorly. Interstria 2 distinct from base to apex but reduced in the middle; 4 missing at base, distinct on elytral disc and vanishing at apical declivity; 5 and 7 fused anteriorly to form a common humeral callus; 6 not reaching base; 8 missing; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed. Hindwings without basal sclerite.

Sternites III-IV more depressed in male than in female, with few punctures, laterally hardly carinate anteriorly; sternites V-VI without basal notch; VII without basal notch, with apical fovea. Tergite VIII of female denticulate at apex. Gonocoxites with two membranous lateral lobes. Tegmen with parameres filiform, not fused.

### *Microtrachelizus occultus* Kleine, 1935 (Fig. 11C, D)

*Microtrachelizus occultus* Kleine, 1935: 307.

*Microtrachelizus pseudobhamoensis* Mantilleri, 2007b: 20, n. syn.

**TYPE MATERIAL.** — *Microtrachelizus occultus*, Papua, Kokoda, 1200 ft, at light, VIII.1933, L. E. Cheesman, typus, *Microtrachelizus occultus* Kln [Kleine's handwriting], R. Kleine det. 1934, *Microtrachelizus occultus* Kleine, A. Mantilleri det. 2007, ♂ lectotype (by present designation) (NHMUK), 2 ♀♀ paralectotypes (NHMUK), 1 ♀ paralectotype (DEI) and 1 ♂ paralectotype (DEI). *Microtrachelizus pseudobhamoensis*: N. Guinea, Ighibirei, Loria, VII-VIII.1890, ♂ holotype (MSNG), 2 ♀♀ paratypes (MSNG), 1 ♂ (MNHN EC2054) and 1 ♀ paratypes (MNHN EC2055).

**MATERIAL EXAMINED.** — **Australia.** N. Q., Iron Ra., at light, 11.V.1971, J. G. Brooks, 1 ♀ (ANIC). — **QLD**, 9 km ENE of Mt Tozer, 12°43'S, 143°17'E, collected at light, 5-10.VII.1986, T. Weir & A. Calder, 1 ♀ (ANIC). — **N. Qld**, Cape York Pen., Iron Range, 16-23.XI.1965, G. Monteith, 1 ♂ (QMB).

**Papua New Guinea.** See type material above; same data as holotype of *M. pseudobhamoensis*, 1 ex. (MZUF). — **New Guinea**, NE, Karimui, light trap, 4.VI.1961, J. L. Gressitt, 1 ex. (BPBM). — **New Guinea**, NE, Mt Missim, 980 m, 20.VII.1969, J. L. Gressitt, 1 ex. (MNHN).

**Solomon Islands.** Honiara, Mt Austen, 19.IX.1962, P. J. M. Greenslade, 1 ex. (NHMUK).

**DISTRIBUTION.** — Australia, Papua New Guinea, Solomon Islands. See map (Fig. 16).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.5-7.0 mm; width across humeral calli: 0.8-1.2 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 11C, D.

Head with three basal notches. Vertex and frons not grooved. Eyes bulging, temples very short, protruding behind eyes. Metarostrum foveate; mesorostrum grooved; prorostrum smooth, 0.54-0.72× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum deep. Antennal segment 3 conical, as long as broad; 4-8 cylindrical, broader than long; 9-10 barrel-shaped; 11 1.6-1.8× longer than 10. Venter of head and metarostrum grooved.

Pronotum quite convex, dull, microreticulate, longitudinally grooved, broader at base than at apex,

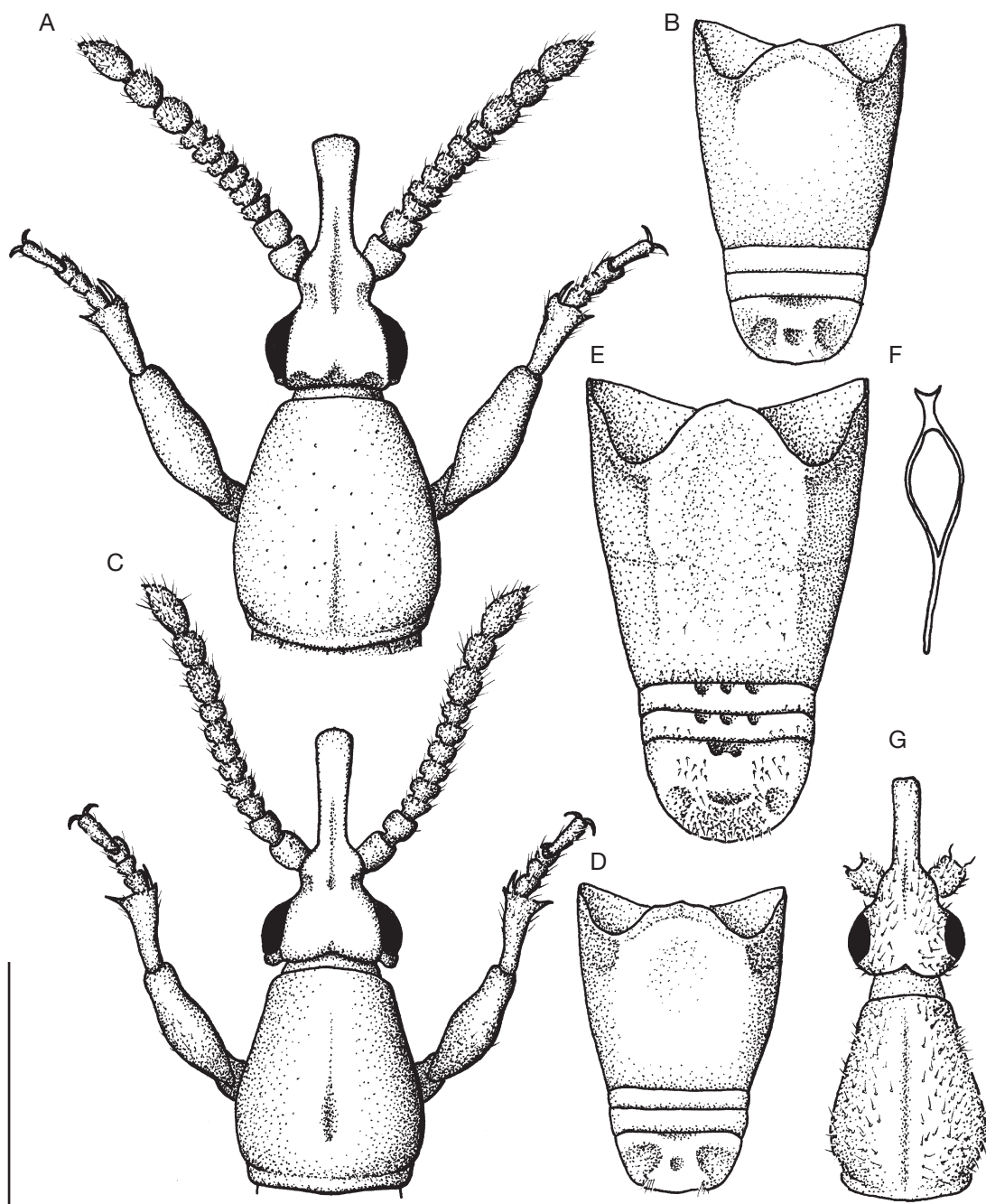


FIG. 20. — **A, B**, *Microtrachelizus brevisulcatus* Senna, 1894, female, head and pronotum (**A**), abdomen (**B**); **C, D**, *M. coomani* Damoiseau, 1987, female, head and pronotum (**C**), abdomen (**D**); **E, F**, *M. pahanganus* Mantillieri, 2007, male, abdomen (**E**) and tegmen (**F**); **G**, *M. pubescens* Senna, 1893, head and pronotum of ♀ lectotype. Scale bar: 1 mm.

not punctate. Prothorax without fovea in front of procoxae, glabrous in female and with thick setae in male; prosternellum distinct. Protibiae 0.6–0.7× as long as profemora. Calcar at apex of protibia longer than first protarsomere. Metasternum quite convex, hardly grooved, laterally not carinate. Elytra glabrous, slightly concave at base, interstriae 1, 3 and 4 projecting anteriorly; 2 distinct only at apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before first half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed.

Sternites III–IV convex or flat in female, depressed in male, laterally weakly carinate; V–VI hardly notched at base (2 or 3 notches); VII with basal notch and apical fovea. Tergite VIII of female dentate at apex. Gonocoxites with two membranous lateral lobes. Tegmen with parameres filiform, not fused.

#### REMARKS

This species was removed from synonymy with *M. bhamoensis* (Senna, 1892) by Mantilleri (2011c). On the base of the synonymy between *M. bhamoensis* and *M. occultus* stated by Damoiseau (1987), *M. pseudobhamoensis* Mantilleri, 2007, was described (Mantilleri 2007b). But after examination of the type series of *M. occultus*, it is obvious that these two taxa are conspecific and have to be synonymised.

As many species of the genus *Microtrachelizus* are very similar and in order to fix the status of this species, a lectotype is designated for *M. occultus* (present designation).

*Microtrachelizus pahanganus* Mantilleri, 2007  
(Figs 10G; 20E, F)

*Microtrachelizus pahanganus* Mantilleri, 2007c: 6.

TYPE MATERIAL. — Malaysia, 9–23.IV.1999, Pahang prov., Tanah Rata env., lgt. Vit Kabourek, ♂ holotype (MZUF).

MATERIAL EXAMINED. — **Indonesia**. Aceh-Selatan, VII–VIII.1983, Babahrot, 100 m, J. Klapperich, 1 ♀ (MHNG). **Malaysia**. Holotype. — Penang, G. E. Bryant, X.1913, 1 ♂ (NHMUK) and 1 ♀ (MNHN).

DISTRIBUTION. — Indonesia (Sumatra), Malaysia. See map (Fig. 22).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.3–6.1 mm; width across humeral calli: 0.8–1.2 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 10G.

Head punctate, weakly notched at base. Vertex and frons not grooved. Temples well distinct, not protruding behind eyes. Metarostrum and mesorostrum grooved; prorostrum 0.55–0.67× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segments 2–8 broader than long; 3 conical; 4–8 cylindrical; 9–10 cylindrical as long as broad; 11 1.7–1.8× longer than 10, pointed at apex. Venter of head and metarostrum with weak longitudinal groove.

Pronotum finely punctate, longitudinal groove distinct only at base. Prothorax glabrous and with small fovea in front of procoxae; prosternellum not distinct. Protibiae 0.5–0.6× as long as profemora. Calcar at apex of protibia shorter than first protarsomere. Metasternum quite convex, grooved, laterally slightly carinate. Elytra glabrous, base almost straight, interstriae not projecting anteriorly. Interstria 2 distinct from base to apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 not reaching base; 9 forming external apical border of elytra. Apex of elytra rounded, slightly expanded, weakly notched.

Sternites III–IV depressed in male, almost flat in female, laterally carinate; V–VI with three basal notches; VII with almost bilobed basal notch and crescent-shaped apical fovea (Fig. 20E). Gonocoxites with one membranous lateral lobe. Tegmen with parameres very reduced, almost missing (Fig. 20F).

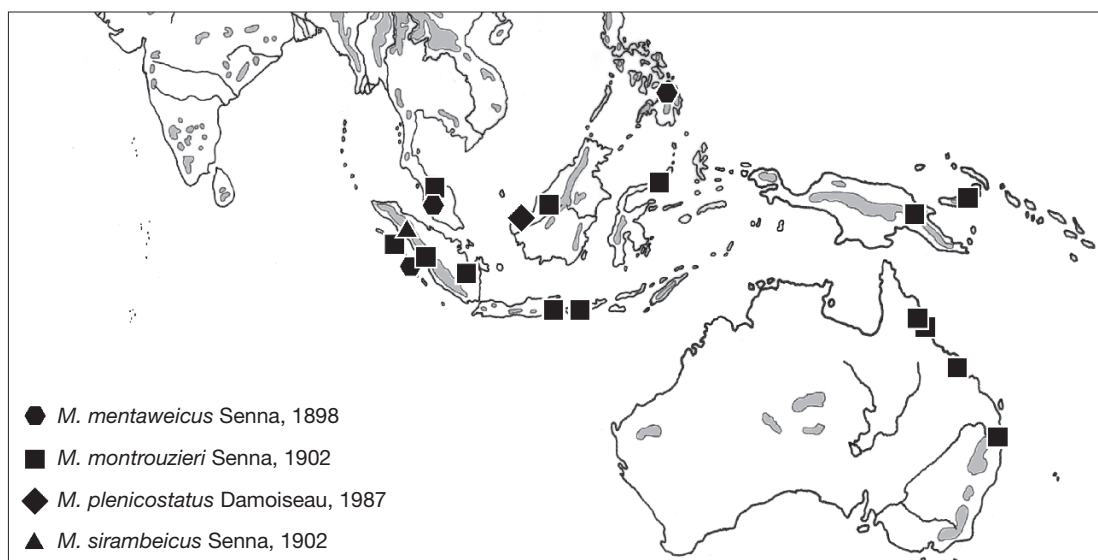
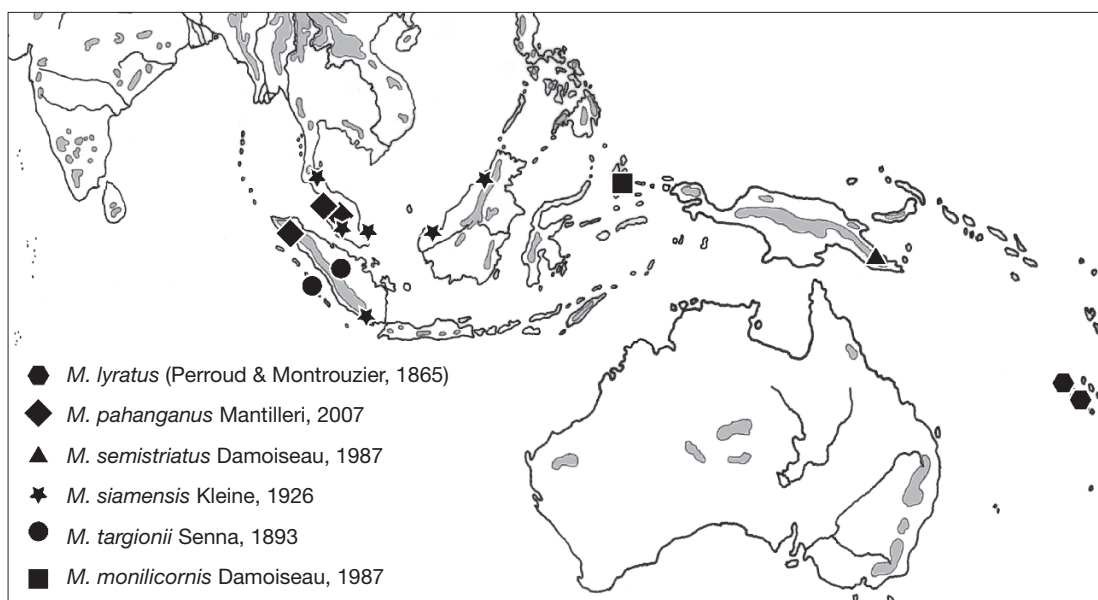
*Microtrachelizus plenicosatus*  
Damoiseau, 1987

*Microtrachelizus plenicosatus* Damoiseau, 1987: 56.

TYPE MATERIAL. — Sarawak, Kuching, F. G. B. 670, 21.VIII.1959, ♂ holotype (NHMUK).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Malaysia (Borneo). See map (Fig. 21).

FIG. 21. — Distribution map of *Microtrachelizus* spp.FIG. 22. — Distribution map of *Microtrachelizus* spp.

## REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.6 mm; width across humeral calli: 0.65 mm. Reddish brown without darker postmedian blotch on elytra.

Head finely punctate, slightly notched at base. Eyes large, temples well distinct, not protruding behind eyes. Vertex and frons not grooved. Metarostrum, mesorostrum and the base of prorostrum grooved;



prorostrium 0.52× as long as head + metarostrium + mesorostrium. Lateral grooves of metarostrium well distinct. Venter of head slightly grooved.

Pronotum convex, finely punctate, grooved only at base. Prothorax foveate in front of procoxae; prosternellum not distinct. Protibiae 0.55× as long as profemora. Metasternum grooved, laterally weakly carinate. Elytra glabrous, base slightly concave. Interstria 2 distinct from base to apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before half of elytra; 9 forming external apical border of elytra. Apex of elytra rounded, slightly expanded, weakly notched.

Sternites III-IV depressed, laterally carinate; V-VI with three basal notches (median notch weak); VII with basal notch and apical fovea, apex hairy (Fig. 17M).

Female unknown.

*Microtrachelizus poggii* Mantilleri, 2007  
(Fig. 11F)

*Microtrachelizus poggii* Mantilleri, 2007b: 18.

TYPE MATERIAL. — N. Guinea, SE, Moroka, 1300 m, VII-XI.1893, ♂ holotype (MSNG), 1 ♀ (MSNG) and 1 ♂ paratypes (MNHN EC2058).

MATERIAL EXAMINED. — **Indonesia**. Prov. Maluku Tengah, Seram N, distr. Seream Utara, Horale (former Saka) vill. env., 02°56'15"S, 129°04'54"E, shrubs, gardens and secondary lowland forest, white light, 06.IV.2009, leg. D. Telnov & K. Greke, 1 ♀ (MZUF).

**Papua New Guinea**. See type material above; same data as holotype, 1 ex. (MZUF). — Papua, Kokoda, 1200 ft, IX.1933, L. E. Cheesman, 2 ex. (NHMUK). — New Guinea, NE, Wau, 1100-1300 m, I.1964, J. Sedlacek, 1 ex. (BPBM). — NE New Guinea, Umboi I., c. 8 km WNW Lab Lab, 300 m, light trap, 8-19.II.1967, G. A. Samuelson, 1 ex. (BPBM).

DISTRIBUTION. — Indonesia, Papua New Guinea. See map (Fig. 18).

DESCRIPTION

See Mantilleri 2007b. Habitus: Figure 11F.

*Microtrachelizus pubescens* Senna, 1893  
(Fig. 9D)

*Microtrachelizus pubescens* Senna, 1893a: 320.

TYPE MATERIAL. — Sumatra, s. tabacco, A. Grouvelle, ♀ lectotype (MZUF) and paralectotype (RMNH).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Indonesia. See map (Fig. 16). The occurrences in Malaysia and Philippines (Sforzi & Bartolozzi 2004: 642) have not been verified.

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.5 mm; width across humeral calli: 0.5 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 9D.

Head (Fig. 20G) flattened, punctate, with basal notch and short thick raised setae. Vertex and frons not grooved. Temples short, not protruding behind eyes. Metarostrium superficially grooved, groove broader on mesorostrium; prorostrium smooth, 0.74× as long as head + metarostrium + mesorostrium. Lateral grooves of metarostrium not distinct. Antennal segments 2-8 much broader than long; 3 conical; 4-8 cylindrical; 9-10 globular; 11 1.82× longer than 10. Venter of head and metarostrium shiny, grooved.

Pronotum (Fig. 20G) shiny, quite coarsely punctate, longitudinally grooved, with numerous thick setae. Prothorax foveate in front of procoxae; prosternellum not distinct. Protibiae 0.6× as long as profemora. Calcar at apex of protibiae longer than first protarsomere. Metasternum grooved, laterally not carinate. Elytra concave at base, odd interstriae with short raised hairs hardly distinct. Interstria 2 missing; 4 distinct from base to apex; 5 and 6 fused anteriorly to form a common humeral callus; 7 distinct only on posterior part of elytra; 8 forming external apical border of elytra. Apex of elytra slightly flattened, not notched. Elytral striae punctate.

Sternites III-IV slightly punctate, superficially grooved, laterally weakly carinate; sternites V-VI with three basal notches; sternite VII with large semi-circular basal notch and apical fovea. Gonocoxites with one membranous lateral lobe.

*Microtrachelizus queenslandicus*  
Damoiseau, 1987

*Microtrachelizus queenslandicus* Damoiseau, 1987: 56.

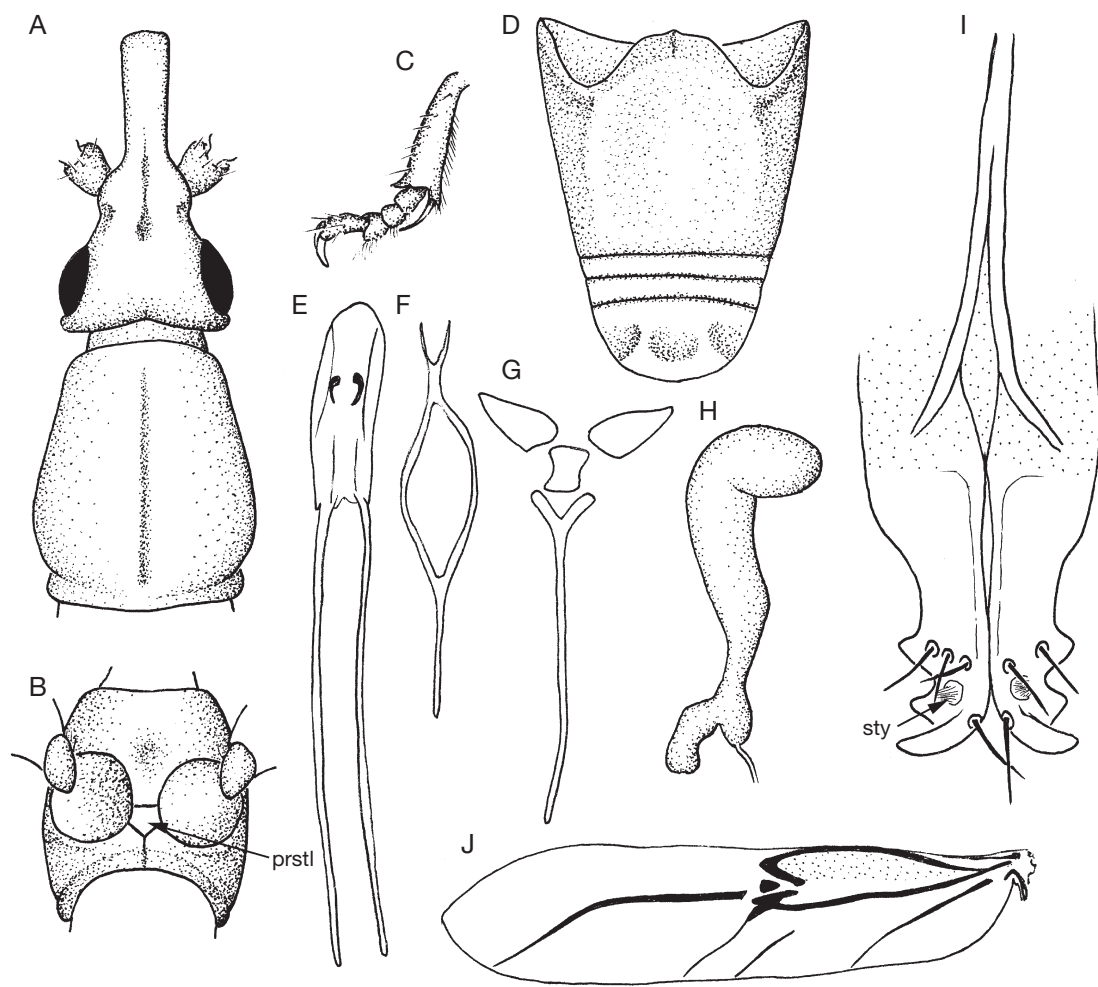


FIG. 23. — *Microtrachelizus lyratus* (Perroud & Montrouzier, 1865): **A**, head and pronotum; **B**, prothorax (**prstl**, prosternum); **C**, protibia and protarsae; **D**, abdomen of male; **E**, penis; **F**, tegmen; **G**, spiculum gastrale; **H**, spermatheca; **I**, apex of gonocoxites (**sty**, stylus); **J**, hindwing. Scale bar: A-D, 1 mm; E-G, 0.6 mm; H, 0.4 mm; I, 0.2 mm; J, 2 mm.

**TYPE MATERIAL.** — N. Qld, Cape York Pen., Via Coen, Rocky R., 14-16.XII.1964, G. Monteith, ♂ holotype (QMB).

**MATERIAL EXAMINED.** — See Mantilleri (2011c).

**DISTRIBUTION.** — Australia (Queensland). See map (Fig. 18).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.0-4.5 mm; width across humeral calli: 0.7-0.8 mm. Reddish brown without darker postmedian blotch on elytra.

Head quite convex, with three basal notches (median notch more distinct). Vertex and frons not grooved. Temples very short, protruding behind eyes. Metarostrum deeply foveate; mesorostrum and the base of pronotum grooved; pronotum 0.62-0.86× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum very short, tomentous. Antennal segments 3-8 strongly broader than long; 3 conical; 4-8 cylindrical; 9-10 not longer than broad; 11 1.7-1.8× longer than 10. Venter of head and metarostrum grooved.

Pronotum convex, longitudinal groove present only at base. Prothorax deeply foveate in front of procoxae; prosternellum distinct. Protibiae 0.6–0.7× as long as profemora. Calcar at apex of protibia longer than first protarsomere. Metasternum depressed in male, flat in female, with large shallow groove, laterally carinate. Elytra glabrous, concave at base; odd interstriae projecting anteriorly. Interstria 2 distinct only at apex; 4 not reaching base; 5 and 7 fused anteriorly to form a common humeral callus; 8 starting just before first half of elytra; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed.

Sternites III–IV depressed in male, almost flat in female, laterally carinate; V–VI without notch; VII without basal notch, with apical fovea. Tergite VIII of female denticulate at apex. Gonocoxites with two membranous lateral lobes. Tegmen with parameres filiform, fused at base.

*Microtrachelizus rectestriatus* (Fairmaire, 1897)  
(Figs 14D–H; 24F–M)

*Cerobates rectestriatus* Fairmaire, 1897: 195.

*Microtrachelizus rectestriatus* – Sforzi & Bartolozzi 2004: 642.

*Microtrachelizus aethiopicus* Calabresi, 1920: 27, n. syn.

*Ceunonus minutus* Kleine, 1922a: 139, n. syn. Syn. with *M. aethiopicus* by Damoiseau (1963b: 127).

*Microtrachelizus sordidus* Kleine, 1922a: 144, n. syn. Syn. with *M. aethiopicus* by Damoiseau (1967: 224).

*Microtrachelizus copulatus* Kleine, 1924: 103, n. syn. Syn. with *M. aethiopicus* by Damoiseau (1967: 224).

*Microtrachelizus captiosus* Kleine, 1924: 104, n. syn. Syn. with *M. aethiopicus* by Damoiseau (1967: 224).

TYPE MATERIAL. — *M. rectestriatus*: Madagascar, Perrier de la Bathie, 1906, ♀ holotype (MNHN EC1975).

*M. aethiopicus*: Is. Principe, Roca Inf., D. Henrique, 100–300 m, I–IV.1901, L. Fea., ♀ lectotype, 1 ♂ and 1 ♀ paralectotypes (MSNG).

*M. minutus*: N Kamerun, L. Conradt, 1896, ♂ lectotype and 8 paralectotypes (DEI). — Kamerun, L. Conradt S., 1 paralectotype (MNHUB). — Togo, Bismarckburg, L. Conradt S., 2 paralectotypes (MNHUB).

*M. sordidus*: N–W Kamerun, Moliwe b. Victoria, holotype (MNHUB).

*M. copulatus*: Tuevo, 2.VIII.1911, R. Mayné, 1 ♂ syntype (MRAC). — Congo de Lemba, IV.1911, R. Mayné, 2 ♀♀ syntypes (MRAC). — Mayumbe, Tshela, 13–27. II.1916, R. Mayné, 1 ♀ syntype (MRAC).

*M. captiosus*: Haut-Uele, Moto, 1922, L. Burgeon, 1 ♀ syntype (MRAC). — Kasai, Makumbi, 18.X.1921, Dr H. Schouteden, 2 ♂♂ syntypes (MRAC). — Kamerun, Barombi, 1 syntype (SMTD).

MATERIAL EXAMINED. — **Angola**. Salazar, I.I.A.A., 9–15. III.1972, at light, 2 ex. (NHMUK).

**Benin**. Dahomey, env. de Porto-Novo, Waterlot 1911, 1 ex. (MNHN).

**Cameroon**. N'Koenvone, Ebolowa, 1–29.II.1969, N. Berti, 6 ex. (MNHN). — Nkoenvone, Ebolowa, 1.XI.1969, N. Berti, 1 ex. (MNHN). — Nkolbisson, 30.I.1968, 1 ex. (MNHN); Nkolbisson, 1.II.1968, 1 ex. (MNHN). — Rég. Lolodorf, Vadon, 2 ex. (MNHN). — Mbalmayo F. Res., Bilif, fogged from *Terminalia ivorensis*, II.1993, 2 ex. (NHMUK).

**Central African Republic**. Bayanga, UV à 42 m dans un *Aningeria*, I–III.2005, P. Annoyer leg., 3 ex. (MNHN).

**Comoros**. Mayotte, Lac Oziani, Petite terre, écorces manguier, VIII.1995, J. Sudre, 1 ex. (MHNG).

**Congo**. Afr. E. F., Brazzaville, Monnier, 3 ex. (MNHN).

**Democratic Republic of the Congo**. See type material of *M. copulatus*. — 3 syntypes of *M. captiosus*. — Congo belge, Kivou, Guy Babault 1922, 1 ex. (MNHN). — Yangambi, sous écorce d'*Hevea*, V.1952, J. Decelle, 1 ex. (MNHN). — Belgian Congo, Beni, Ituri forest, IX.1946, T. H. E. Jackson, 1 ex. (NHMUK).

**Ethiopia**. Abessin., Kristensen, 2 ex. (MNHN). — Abyssinie, Hora Oitu, 1 ex. (MNHN). — Shoa, under bark of tree, 1 ex. (NHMUK).

**Gabon**. Beling, I–V.1963, H. Coiffait, 34 ex. (MNHN). — Makokou, I–III.1963, 4 ex. (MNHN). — Riv. Noya, J. de Muizon, sous écorce, 13 ex. (MNHN). — Oyem, J. de Muizon, 54 ex. (MNHN). — Ogooué, Lambaréné, R. Ellenberger, 1912, 2 ex. (MNHN). — 4 ex. (MNHN). — Forêt de la Conkuati, bois mort, 3 ex. (MNHN).

**Ghana**. Gold Coast, Mpraeso, 1945–1946, G. H. Thompson, 2 ex. (NHMUK). — Kumasi, Ashanti region, IV.1998, T. Bouyer & E. Joly, 1 ex. (NHMUK). — Akwapogan Ridge, 17.VI.1986, 1 ex. (MZUF).

**Ivory Coast**. Bingerville, 1 ex. (MNHN). — Adiopodoumé, 20.III.1977, I. Löbl, 3 ex. (2 in MHNG, 1 in MNHN).

**Kenya**. Afrique orient. Angl., Voi, Ch. Alluaud 1904, 5 ex. (MNHN).

**Madagascar**. Holotype of *M. rectestriatus*; Perrier de la Bathie, coll. Léon Fairmaire, 1906, 6 ex. (MNHN); Périnet, 3 ex. (MNHN). — S Mad., Bekily, III.1933, Seyrig, 1 ex. (MNHN).

**Nigeria**. Ibadan, at light, 26.I.1956, 1 ex. (NHMUK).

**Mozambique**. Moçambique, vallée du Pungoué, Guengère, G. Vasse 1906, 1 ex. (MNHN).

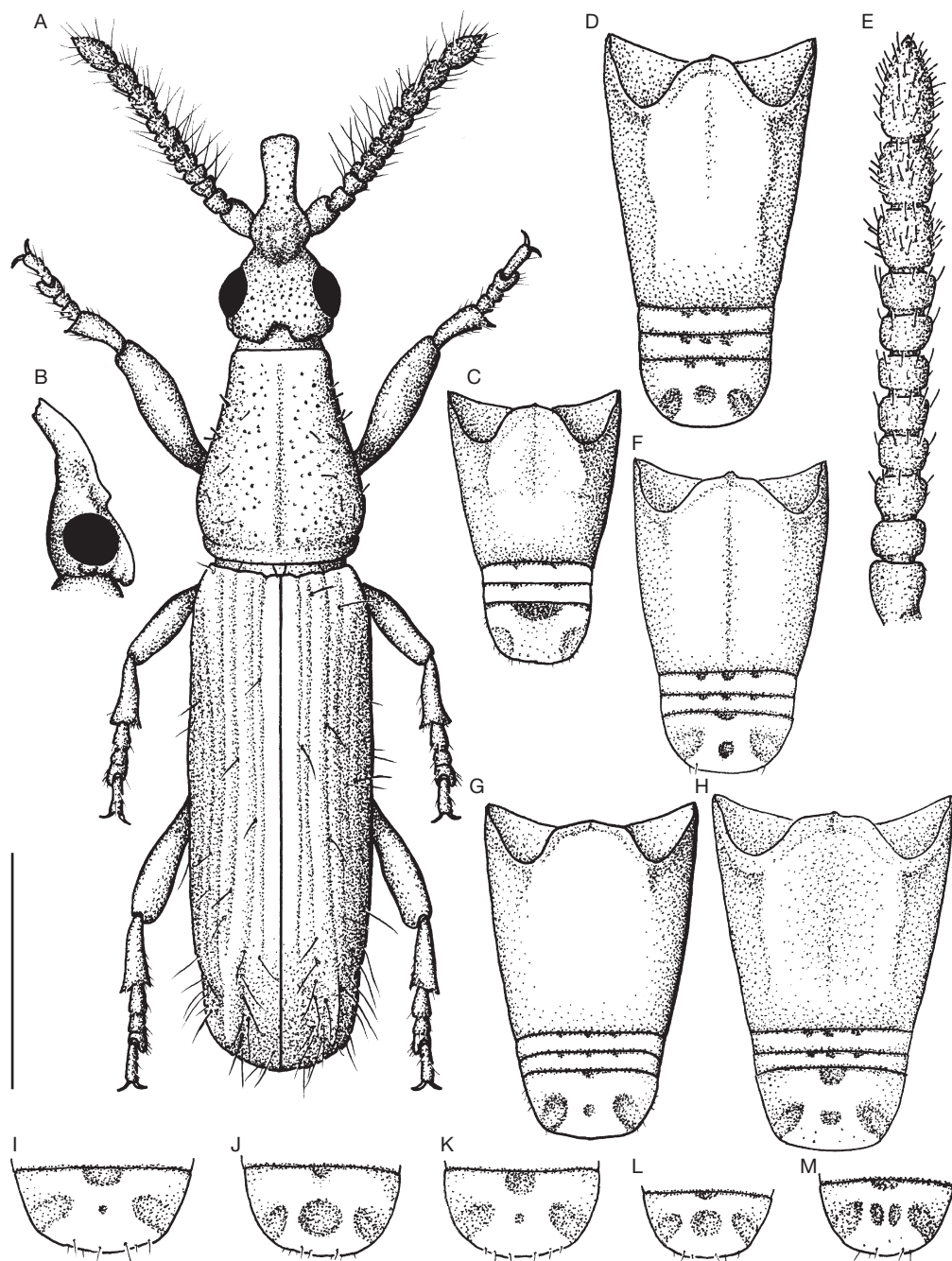


FIG. 24. — **A–C**, *Microtrachelizus monilicornis* Damoiseau, 1987, ♂ holotype, habitus (**A**), head, lateral (**B**), and abdomen (**C**); **D**, *M. semistriatus* Damoiseau, 1987, abdomen of ♀ holotype; **E**, *M. rudis* Kleine, 1937, antenna; **F–M**, *M. rectestriatus* (Fairmaire, 1897); **F**, abdomen of ♀ holotype; **G**, abdomen of ♀ lectotype (*M. aethiopicus* Calabresi, 1920); **H**, abdomen of ♂ syntype (*M. copulatus* Kleine, 1924); **I**, sternite VII of female from Belinga; **J**, sternite VII of male from Belinga; **K**, sternite VII of male from Makokou; **L**, sternite VII of female from Makokou; **M**, sternite VII of female from Noya. Scale bar: 1 mm.



**Rwanda.** Cyangugu pref., Nyakabuye, 15.XI.1982, leg. Hans Möhle, 1 ex. (MZUF).

**São Tomé and Príncipe.** Type material of *M. aethiopicus* (MSNG).

**Sierra Leone.** Eastern Prov., Tama Forest Reserve, 15-16.V.1991, leg. W. Rossi, 3 ex. (2 in MZUF, 1 in MNHN).

**South Africa.** S. Africa, R. E. Turner, Port St John, Pondoland, XI.1923, 2 ex. (NHMUK). — Kruger Nat. Pk, Pafuri res. camp, 22°25'S, 31°12'E, 31.I.1994, *Longicarpus* bark, leg. Endrödy-Younga, 2 ex. (MZUF).

**Tanzania.** Uluguru Mts, IV.1991, Werner leg., 1 ex. (MZUF). — East Usambara, Amani, 1000 m, 5.II.1977, 1 ex. (MZUF).

**Togo.** Togoland, L. Conradt, 1 ex. (MNHN). — Palime, forêt de Klouto, 20-24.IV.1974, S. Vit, 2 ex. (MHNG).

**Zambia.** N. Rhodesia, Namwala, 29.III.1913, H. C. Dollman, 6 ex. (4 in NHMUK, 2 in MNHN).

**DISTRIBUTION.** — Tropical Africa, Comoros, Madagascar. See map (Fig. 27).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.4-5.7 mm; width across humeral calli: 0.5-0.9 mm. Reddish brown without darker postmedian blotch on elytra. Habitus: Figure 14D-H.

Head with basal median notch, most of the time punctate. Vertex and frons grooved or not. Temples short, protruding behind eyes. Metarostrum foveate; mesorostrum and the base of prorostrum grooved; prorostrum 0.41-0.58× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segments 3 conical, broader than long; 4-8 cylindrical, broader than long; 9-10 barrel-shaped, as long as broad; 11 1.5-1.7× longer than 10. Venter of head, metarostrum and mesorostrum grooved.

Pronotum convex or flattened, sometimes almost depressed on disc, longitudinally grooved, finely punctate or not. Prothorax glabrous, foveate in front of procoxae; prosternellum not distinct. Protibiae 0.5-0.6× as long as profemora. Calcar at apex of protibia as long as or longer than first protarsomere. Metasternum longitudinally grooved, laterally carinate. Elytra glabrous, base slightly concave. Interstria 2 distinct only at apex; 4 present from base to apex; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 not reaching base; 9 forming external apical border of elytra. Apex of elytra rimmed. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV (Fig. 24F-H) laterally carinate, convex and slightly grooved in female, slightly depressed in male; V-VI with three basal notches; VII with basal notch and apical fovea (shape of apical fovea is very variable, from large and rounded to very small or separated in two parts; see Figure 24F-M). Tergite VIII of female denticulate at apex. Gonocoxites with one membranous lateral lobe. Tegmen with parameres filiform, not fused.

#### REMARKS

This species, widely spread in tropical Africa (including Madagascar where it is the only known representative of the tribe) and very distinct from other African *Microtrachelizus*, is extremely polymorphic and shows a large variability of characters. Some individuals are dull, other are shiny; some are smooth, some are punctate on head and pronotum; some have convex pronotum, some are more flattened; some have large apical fovea on sternite VII and in some individuals this fovea is very small or even separated in two parts. All these states of characters may be associated in different individuals, and there is no geographical correlation with any of these variations. It is very surprising that the same species occurs from São Tomé and Príncipe to Madagascar and from Sierra Leone to South Africa but it seems not possible to separate this "species" in different subgroups with the help of morphological characters. Molecular studies such as barcoding may help solving this problem.

Morphological characters of the type specimen of *M. rectestriatus* are included in the range of variability of *M. rectestriatus* in the broad sense. It looks very similar to the type of *M. aethiopicus*. *Ceunonus minutus*, *M. sordidus*, *M. copulatus* and *M. captiosus* were already synonymised with *M. aethiopicus* and then all become junior subjective synonyms of *M. rectestriatus*.

In MRAC, specimens of the type series of *M. copulatus* and *M. captiosus* bear "holotypus" and "paratypus" labels. Kleine (1924) did not design any specimen of the type series as holotype, and no lectotype designation was subsequently made. All these specimens must be considered as syntypes as written in the paragraph Type material above.



*Microtrachelizus rudis* Kleine, 1937  
(Figs 12D; 24E)

*Microtrachelizus rudis* Kleine, 1937: 506.

TYPE MATERIAL. — Sarawak, foot of Mt Dulit, junction of rivers Tinjar & Lejok, 12.IX.1932, on bark felled timber, ♀ holotype (NHMUK).

MATERIAL EXAMINED. — **Brunei.** Brunei, Temburong Dist., ridge NE Kuala Belalong, 300 m, 125 w m.v. light, X.1992, J. H. Martin, 4 ex. (3 in NHMUK, 1 in MNHN).

**Indonesia.** Indonesia E, prov. Raja Ampat, Misool SW, distr. Misool Utara, Aduwey [Adua] vill., c. 2-5 km NNW valley of river Hakau, 01°58'46"S, 129°54'37"E, 27.III.2009, primeval lowland forest, white light, leg. D. Telnov, 1 ♂ (MZUF).

**Malaysia.** Malay Penins., 6 ex. (NHMUK). — Holotype. — W Sarawak, Quop, II-III.1914, G. E. Bryant, 1 ex. (MNHN). — Bornéo, Sabah, Sepilok, IV-V.1982, leg. Burckhardt, 1 ex. (MHNG). — Sabah, Crocker Range, 04-12.IV.2008, alt. 900 m, S. Chew leg., 1 ex. (coll. AM). — Sarawak, Kapit distr., Rumah Ugap vill., Sut. riv., 3-9.III.1994, S. Bily leg., 6 ex. (NMPC). — Hulu Perak, Bangunan Camp, c/o Kampung Semelor (E shore lake Tasek-Temengor), 5°30'18"N, 101°24'16"E, 230 m, 9-12.VI.2009, J. Ng, 1 ex. (MZUF).

**Papua New Guinea.** Papua, Fly R., Kiunga, 35 m, VIII.1969, J. & M. Sedlacek, prép. micro. n°AM-BPBM 00002, 1 ♀ (BPBM).

DISTRIBUTION. — Brunei, Indonesia, Malaysia, Papua New Guinea. See map (Fig. 19).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.2-7.2 mm; width across humeral calli: 0.7-1.0 mm. Dark reddish brown, postmedian blotch on elytra missing or hardly distinct. Habitus: Figure 12D.

Head punctate, with basal median notch. Vertex and frons grooved. Temples short, weakly protruding behind eyes. Metarostrum and mesorostrum grooved; prorostrum finely punctate, 0.70-0.80× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segments (Fig. 24E) 2-8 broader than long; 2 cylindrical; 3 conical; 4-8 cylindrical; 9-10 barrel-shaped, slightly longer than broad; 11 1.65-1.73× longer than 10. Venter of head and metarostrum grooved.

Pronotum convex, microreticulate, lightly punctate, with few raised squamulose setae and longitudinal

groove distinct only at base. Prothorax without fovea in front of procoxae; prosternellum not distinct. Protibiae 0.6-0.7× as long as profemora. Calcar at apex of protibia as long as first protarsomere. Metasternum quite convex, longitudinally grooved, laterally not carinate. Elytra concave at base, with raised squamulose setae on odd interstriae. Interstria 2 well distinct only at apex; 4 distinct from base to apex; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 not reaching base; 9 forming external apical border of elytra. Apex of elytra rimmed. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV quite convex and lightly grooved in female, more depressed in male, laterally carinate; V-VI with two basal notches; VII with large basal notch and hardly distinct apical fovea. Gonocoxites with two membranous lateral lobes. Spermatheca with a strong projection as on Fig. 25E. Tegmen with parameres filiform, not fused.

#### REMARKS

The two specimens from New Guinea and Misool are slightly different from those from Malaysia and Borneo. Notches on sternites V-VI are almost indistinct and basal notch on sternite VII of the female specimen is missing. But I was unable to find other differences and, waiting for examining additional specimens, I prefer to consider them as conspecific with the Malaysian individuals.

*Microtrachelizus semistriatus* Damoiseau, 1987  
(Fig. 24D)

*Microtrachelizus semistriatus* Damoiseau, 1987: 56.

TYPE MATERIAL. — NE Papua, Mt Lamington, 1300 to 1500 feet, C. T. McNamara, ♀ holotype (SAMA).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — New Guinea. See map (Fig. 22).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.3 mm; width across humeral calli: 0.7 mm. Reddish brown, without darker postmedian blotch on elytra.

Head finely punctate, with basal median notch and two weak paramedian notches. Vertex and frons not grooved. Temples short, not protruding behind eyes. Metarostrum foveate; mesorostrum and the base of prorostrum grooved; prorostrum  $0.60\times$  as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum quite shallow. Antennal segment 2 cylindrical, as long as broad; 3 conical; 4-8 subcylindrical, broader than long; 9-10 slightly longer than broad; 11  $1.7\times$  longer than 10. Venter of head and metarostrum grooved.

Pronotum shiny, finely punctate, longitudinal groove deep at base and vanishing apically. Prothorax slightly foveate in front of procoxae; prosternellum not distinct. Protibiae  $0.5\times$  as long as profemora. Metasternum grooved, quite convex, laterally carinate. Elytra glabrous, slightly concave at base. Interstria 2 distinct from base to apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting at end of first half of elytra; 9 forming external apical border of elytra. Apex of elytra rounded, rimmed.

Sternites III-IV (Fig. 24D) not depressed, laterally carinate; V-VI with three basal notches; VII with two paramedian basal notches and apical fovea.

Male unknown.

*Microtrachelizus siamensis* Kleine, 1926  
(Fig. 12B)

*Microtrachelizus siamensis* Kleine, 1926: 165.

TYPE MATERIAL. — Peninsular Siam, Nakon Sri Tamarat, Khao Luang, 2000 ft, 29.III.1922, H. M. Pendlebury, ♂ holotype (NHMUK).

MATERIAL EXAMINED. — **Brunei**. Labi, Bukit Teraja, 60 m, Mxt. dipt. forest, light trap 3, 25 m above ground, 24.VIII.1979, S. L. Sutton, 1 ex. (NHMUK).

**Indonesia**. S Sumatra, Lampung prov., Bukit Barisan Selatan NP, 5 km W Liwa,  $05^{\circ}04'S$ ,  $104^{\circ}04'E$ , 600 m, 7-17.II.2000, J. Bezdek leg., 1 ex. (NMPC).

**Malaysia**. NW Borneo, Kuching, 14.VII.1999, Dyak, 1 ex. (MZUF). — Pahang distr., 30 km NE Raub, Lata Lembik,  $3^{\circ}56'N$ ,  $101^{\circ}38'E$ , 200-400 m, 22.IV-15.V.2002, E. Jendek & O. Sausa leg., 1 ex. (MNHN). — Pahang, Tioman Isl., 7-25.II.2000, Kampong Tekek, 5-295 m, Strba leg., 1 ex. (coll. PH).

**Thailand**. Holotype.

DISTRIBUTION. — Brunei, Indonesia (Sumatra), Malaysia, Thailand. See map (Fig. 22). The occurrence in Philippines (Sforzi & Bartolozzi 2004: 643) has not been verified.

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.9-7.0 mm; width across humeral calli: 0.6-1.1 mm. Reddish brown, without darker postmedian blotch on elytra. Habitus: Figure 12B.

Head finely punctate, with basal median notch. Vertex and frons not grooved. Eyes large, temples short slightly protruding behind eyes. Metarostrum, mesorostrum and the base of prorostrum grooved; prorostrum  $0.47-0.56\times$  as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 3 conical, longer than broad; 4-8 slightly broader than long; 9-10 barrel-shaped, longer than broad; 11  $1.5-1.8\times$  longer than 10. Venter of head and metarostrum grooved.

Pronotum quite shiny, finely punctate, longitudinally grooved, groove vanishing apically. Prothorax with small fovea in front of procoxae; prosternellum not distinct; procoxae hairy in male, glabrous in female. Protibiae  $0.5-0.6\times$  as long as profemora. Calcar at apex of protibia hardly as long as first protarsomere. Metasternum grooved, laterally lightly carinate. Elytra glabrous, concave at base. Interstria 2 distinct from base to apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 not reaching base; 9 forming external apical border of elytra. Apex slightly expanded, angulous, notched. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV weakly depressed in male, slightly convex in female, hardly grooved, laterally carinate; V-VI with three basal notches; VII with basal notch, without apical fovea.

*Microtrachelizus silvicola* Senna, 1903  
(Fig. 10F)

*Microtrachelizus silvicola* Senna, 1903: 168.

TYPE MATERIAL. — Sumatra, Si-Rambé, XII.1990-III.1991, E. Modigliani, ♀ lectotype (MSNG). — Malacca, ex coll. Boucard, paralectotype (MZUF).

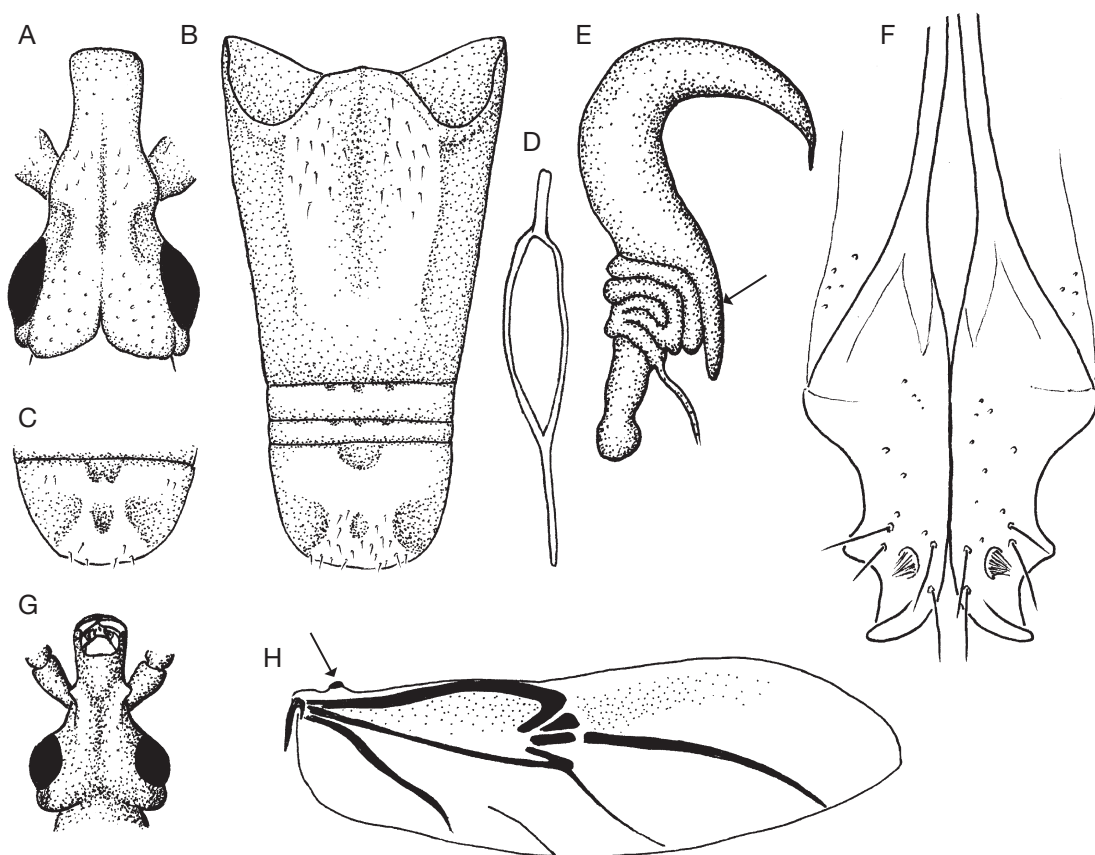


FIG. 25. — **A–D**, *Microtrachelizus floreni* n. sp.: **A**, head; **B**, abdomen of male; **C**, sternite VII of ♀ paratype; **D**, tegmen; **E**, *M. costatus* Damoiseau, 1987, spermatheca (arrow shows the strong projection); **F**, *M. charlottae* Mantilleri, 2010, gonocoxites with one membranous lateral lobe; **G**, *Higonius* (*Higonius*) *poweri* Lewis, 1883, venter of head; **H**, *M. bhamoensis* (Senna, 1892), hindwing (arrow shows basal sclerite). Scale bar: A–D, G, 1 mm; E, 0.33 mm; F, 0.2 mm; H, 2.5 mm.

**MATERIAL EXAMINED.** — **Indonesia.** Lectotype. — North Sumatra, Kedah env., 19.IV.1998, lgt. V. Kabourek, 1 ex. (MZUF).

**Malaysia.** Paralectotype. — Perak, Cameron Highlands, Tanah Rata, 13–16.III.1997, Ivo Jenis leg., 1 ex. (MNHN).

**DISTRIBUTION.** — Indonesia (Sumatra), Malaysia. See map (Fig. 26).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.4–5.6 mm; width across humeral calli: 0.6–0.8 mm. Reddish brown, without darker postmedian blotch on elytra. Habitus: Figure 10F.

Head finely punctate, with median basal notch and two hardly distinct paramedian notches. Vertex and

frons grooved. Temples quite long, not protruding behind eyes. Metarostrum, mesorostrum and the base of prorostrum grooved; prorostrum  $0.47\times$  as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 3 conical as long as broad; 4–8 cylindrical broader than long; 9–10 slightly longer than broad; 11  $1.5\times$  longer than 10. Venter of head and metarostrum finely grooved.

Pronotum quite shiny, finely and sparsely punctate, much larger at base than at apex, grooved. Prothorax with small fovea in front of procoxae; prosternellum not distinct. Protibiae  $0.5\times$  as long as profemora. Calcar at apex of protibia as long as or shorter than first protarsomere. Metasternum

grooved, laterally not carinate or carina weak. Elytra straight at base, with few long fine setae inserted on border of odd interstriae. Interstria 2 distinct from base to apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before end of first half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed.

Sternites III-IV depressed in male, flat in female, laterally carinate; V-VI notched at base; VII with basal notch, without apical fovea. Gonocoxites with one membranous lateral lobe. Tegmen with parameres filiform, not fused.

*Microtrachelizus sirambeicus* Senna, 1903  
(Fig. 12A)

*Microtrachelizus sirambeicus* Senna, 1903: 169.

TYPE MATERIAL. — Sumatra, Si-Rambé, XII.1990-III.1991, E. Modigliani, ♂ holotype (MSNG).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Indonesia (Sumatra). See map (Fig. 21).

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 8.0 mm; width across humeral calli: 1.1 mm. Reddish brown, without darker postmedian blotch on elytra. Habitus: Figure 12A.

Head very slightly punctate, posteriorly weakly notched. Vertex and frons grooved. Temples well distinct, not protruding behind eyes. Metarostrum, mesorostrum and the base of prorostrum grooved; prorostrum 0.6× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 2 hardly broader than long; 3 conical longer than broad; 4-8 subconical as long as broad; 9-10 ovoid, longer than broad; 11 1.5× longer than 10. Venter of head and metarostrum slightly grooved.

Pronotum convex, with fine sparse punctures, longitudinal the groove deeper at base than at apex. Prothorax foveate in front of procoxae; prosternellum not distinct. Protibiae 0.6× as long as profemora. Calcar at apex of protibiae as long as first protarsomere. Metasternum flat, grooved, laterally

carinate. Elytra concave at base, with thick raised setae on odd interstriae. Interstria 2 distinct only at apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 starting just before end of first half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed.

Sternites III-IV depressed, with few fine setae on sternite III, laterally carinate; V-VI with two basal notches; VII with weak basal notch, without apical fovea. Tegmen with parameres filiform, not fused.

Female unknown.

*Microtrachelizus tabaci* Senna, 1893  
(Fig. 12C)

*Microtrachelizus tabaci* Senna, 1893a: 323.

TYPE MATERIAL. — Sumatra, s. tabacco, A. Grouvelle, ♀ lectotype (MZUF) and paralectotype (RMNH).

MATERIAL EXAMINED. — **Indonesia.** ♀ lectotype. — North Sumatra, Kedah env., 19.IV.1998, lgt. V. Kabourek, 1 ex. (MZUF). — Sumatra, Palembang, 1 ex. (MNHN). — Sulawesi Utara, Dumoga-Bone N.P., fog 12, 230 m, 5.V.1985, 1 ex. (NHMUK). — West Java, Gunung Halimun NP, Cikaniki, alt. 950 m, 6°44'91S, 106°37'26E, canopy light trap, 7.XI.2002, Rofik, Sanno & Darmawan, 1 ex. (MZB).

**Malaysia.** Sarawak, Bintulu, VII.1959, 1 ex. (NHMUK). — W Malaysia, Pahang, Taman Negara, 90-130 m, Tahan tr., prim. for., 11.III.1993, Löbl & Calame, 1 ex. (MHNG). **Vietnam.** Tonkin, région de Hòa Bình, A. de Cooman, 1 ♀ (MNHN).

DISTRIBUTION. — Indonesia, Malaysia, Vietnam. See map (Fig. 26). The occurrences in Philippines and New Guinea (Sforzi & Bartolozzi 2004: 644) have not been verified. The New Guinea record is probably erroneous.

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 4.7-5.8 mm; width across humeral calli: 0.7-0.8 mm. Reddish brown, without darker postmedian blotch on elytra. Habitus: Figure 12C.

Head punctate, with basal median notch. Vertex and frons grooved. Temples short, protruding behind eyes. Metarostrum, mesorostrum and the base of prorostrum grooved; prorostrum 0.44-0.66×

as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 2 cylindrical almost as long as broad; 3 conical slightly longer than broad; 4-8 cylindrical, broader than long; 9-10 barrel-shaped, longer than broad; 11 1.5-1.8× longer than 10. Venter of head and metarostrum grooved.

Pronotum glabrous, microreticulate, grooved. Prothorax foveate in front of procoxae; prosternellum not distinct. Protibiae 0.55-0.7× as long as profemora. Calcar at apex of protibia as long as first protarsomere. Metasternum slightly flattened, grooved, laterally lightly carinate. Elytra glabrous, concave at base. Interstria 2 distinct only at apex; 4 distinct from base to apex; 5, 6 and 7 sometimes fused anteriorly to form a common humeral callus;

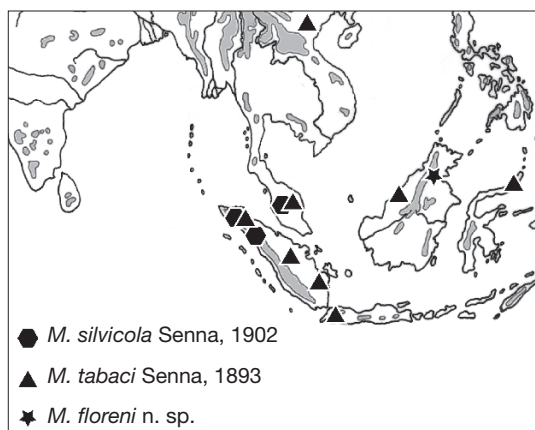


FIG. 26. — Distribution map of *Microtrachelizus* spp.

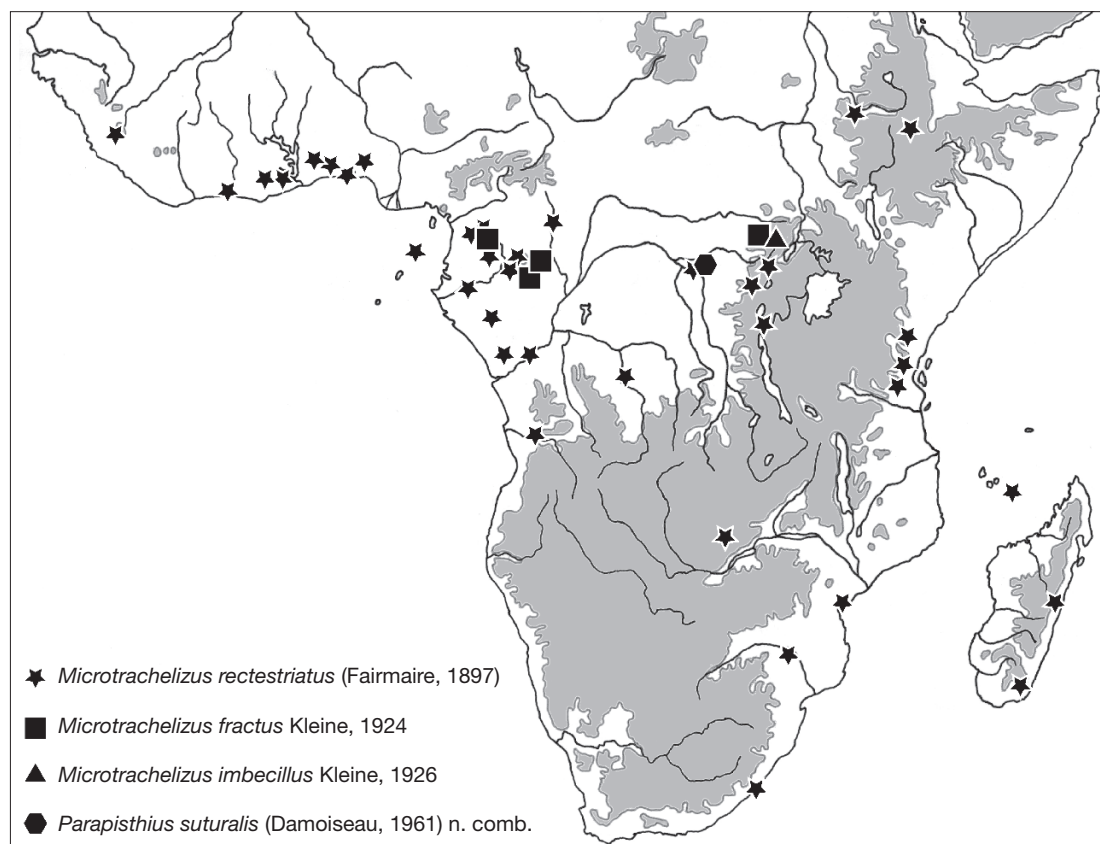


FIG. 27. — Distribution map of African *Microtrachelizus* spp. and *Parapisthius suturalis* (Damoiseau, 1961) n. comb.



8 starting just before end of first half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed, sometimes notched. Hindwings with weakly sclerotised basal sclerite.

Sternites III-IV quite flat, weakly grooved, laterally carinate; V-VI with three basal notches; VII with semi-circular basal notch and apical fovea. Gonocoxites with two membranous lateral lobes. Tegmen with parameres filiform, not fused.

*Microtrachelizus targionii* Senna, 1893  
(Fig. 10E)

*Microtrachelizus targionii* Senna, 1893a: 322.

TYPE MATERIAL. — Grouvelle, mit Tabak von Sumatra, ♂ lectotype (RMNH).

MATERIAL EXAMINED. — **Indonesia.** ♂ lectotype; Sumatra, Grouvelle 1892, 1 ♂ (MSNG). — Mentawai, Si Oban, IV-VIII.1894, Modigliani, 1 ♂ (MSNG).

DISTRIBUTION. — Indonesia (Sumatra, Mentawai). See map (Fig. 22). The occurrence in New Guinea (Sforzi & Bartolozzi 2004: 644) has not been verified: it is probably erroneous.

REDESCRIPTION

Length from apex of rostrum to apex of elytra: 3.6-3.7 mm; width across humeral calli: 0.5 mm. Reddish brown, without darker postmedian blotch on elytra. Habitus: Figure 10E.

Head more or less coarsely punctate, with three basal notches. Vertex and frons not grooved. Temples short, protruding behind eyes. Metarostrum foveate and grooved; mesorostrum and the base of prorostrum grooved; prorostrum 0.63-0.74× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 3 conical, broader than long; 4-8 cylindrical, broader than long; 9-10 barrel-shaped hardly longer than broad; 11 1.57-1.77× longer than 10. Venter of head and metarostrum grooved.

Pronotum grooved, microreticulate, more or less coarsely punctate, glabrous. Prothorax foveate in front of procoxae; prosternellum distinct. Protibiae 0.6× as long as profemora. Metasternum flattened, grooved, laterally carinate. Elytra glabrous, concave at base. Interstria 2 distinct only at apex; 4 distinct

from base to apical declivity; 5 and 7 fused anteriorly to form a common humeral callus; 6 not reaching base; 8 distinct only in posterior half; 9 forming external apical border of elytra. Apex of elytra rimmed.

Sternites III-IV flat, slightly depressed, laterally strongly carinate; V-VI with three basal notches; VII with basal notch and apical fovea. Tegmen with parameres filiform, not fused.

Female unknown.

*Microtrachelizus thai* Mantilleri, 2010

*Microtrachelizus thai* Mantilleri, 2010b: 160.

TYPE MATERIAL. — NW Thailand, Mae Hong Son prov., Soppong, 1500 m, 9-12.V.1996, Sv. Bílý leg., ♂ holotype (NMPC).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — Thailand. See map (Fig. 19).

DESCRIPTION

See Mantilleri 2010b.

*Microtrachelizus weigeli* Mantilleri, 2010

*Microtrachelizus weigeli* Mantilleri, 2010b: 160.

TYPE MATERIAL. — Indonesia, Irian Jaya, Nabire, E Kwatisore, 47 km S Urie Camp, 3°32'26"S, 134°51'69"E, 27.II.1998, leg. A. Weigel, ♀ holotype (NME). — New Guinea (NE), Karimui, light trap, 03.VI.1961, J. L. & M. Gressitt, ♀ paratype (BPBM).

MATERIAL EXAMINED. — See type material above.

DISTRIBUTION. — New Guinea (Indonesia and Papua New Guinea). See map (Fig. 18).

DESCRIPTION

See Mantilleri 2010b.

Genus *Neohigonius* Goossens, 2005

*Neohigonius* Goossens, 2005: 52.

TYPE SPECIES. — *Neohigonius longirostris* Goossens, 2005, by original designation.

DISTRIBUTION. — New Guinea.

#### REMARKS

This genus, with its sole known species *N. longirostris*, is very closely allied to *Higonius* and is fully redescribed and illustrated in Mantilleri (2009b).

#### Genus *Parapisthius* Kleine, 1935

*Parapisthius* Kleine, 1935: 308.

TYPE SPECIES. — *Parapisthius intermedius* Kleine, 1935, by original designation.

DISTRIBUTION. — Brunei, India, Laos, Malaysia, Myanmar, Papua New Guinea, Vietnam and Democratic Republic of the Congo (*P. suturalis* n. comb.).

DIAGNOSIS. — Last three antennal segments not strongly flattened. Female without patch of white hair on head. Profemora not very large, not flattened. Metasternum laterally carinate. Elytra glabrous.

Elytral interstria 1 enlarged and rolled at apex (except on small specimens of *P. brevitibia* (Senna, 1892) where interstria 1 may be of normal shape). External apical border of elytra formed by interstria 9. Apex of elytra notched, without strong apical processes. Sternites III-IV laterally carinate; V-VII with basal notch.

#### REMARKS

This genus was reviewed by Mantilleri (2008) and includes five species from Southeast Asia and New Guinea. One species from Africa should be added, *Entomopisthius suturalis* Damoiseau, 1961, as suggested by Mantilleri (2009a) and tentatively by the present phylogeny (Fig. 28). Only one character (n° 29 in Table 2), the shape of the apex of interstria 1, is the synapomorphy of this genus.

#### *Parapisthius suturalis* (Damoiseau, 1961) n. comb. (Fig. 14A)

*Entomopisthius suturalis* Damoiseau, 1961: 285.

TYPE MATERIAL. — Yangambi, C. Donis, 1951, ♂ holotype (MRAC) and 5 paratypes (1 in IRSNB, 4 in MRAC).

MATERIAL EXAMINED. — Democratic Republic of the Congo. Holotype.

DISTRIBUTION. — Democratic Republic of the Congo. See map (Fig. 27).

#### REDESCRIPTION

Length from apex of rostrum to apex of elytra: 5.4 mm; width across humeral calli: 0.95 mm. Reddish brown, without darker postmedian blotch on elytra. Habitus: Figure 14A.

Head broader than long, punctate, notched posteriorly. Vertex and frons not grooved. Temples short, weakly protruding behind eyes. Metarostrum and mesorostrum grooved; prorostrum smooth, 0.6× as long as head + metarostrum + mesorostrum. Lateral grooves of metarostrum well distinct. Antennal segment 3 conical, slightly longer than broad; 4-8 cylindrical hardly broader than long; 9-10 as long as broad; 11 1.6× longer than 10. Venter of head and metarostrum grooved.

Pronotum pyriform, microreticulate, punctate, with deep median groove. Prothorax glabrous, foveate in front of procoxae. Protibiae 0.5× as long as profemora. Metasternum finely punctate, grooved, laterally carinate. Elytral interstria 2 distinct only at apex; 4 distinct from base to apical declivity; 5, 6 and 7 fused anteriorly to form a common humeral callus; 8 distinct only on posterior half of elytra; 9 forming external apical border of elytra. Apex of elytra rimmed, notched, the first interstria enlarged and rolled at apex.

Abdomen missing, but following the description given by Damoiseau (1961), sternites III-IV are longitudinally depressed and VII is notched at base and latero-apically with two depressions. Tegmen with parameres filiform, not fused.

Female unknown.

#### REMARKS

This species, only known from the Democratic Republic of the Congo, shares all the synapomorphies of the genus *Parapisthius*. It is therefore included in this group. It is easily distinguished from all other *Parapisthius* species by the quite strong punctures on the pronotum.

#### Genus *Pseudohigonius* Damoiseau, 1987

*Pseudohigonius* Damoiseau, 1987: 53.

TABLE 2. — Fifty-seven characters of the morphology of adults used in the phylogenetic analysis. The different states of characters are indicated in brackets as coded in the matrix.

Characters	
1	Last three antennal segments flattened (1) or not flattened (0).
2	Last antennal segment strongly acuminate at apex ( <i>cf.</i> Figs 2E; 3B) (1) or not strongly acuminate ( <i>cf.</i> Figs 20A, B; 24A) (0).
3	Antennal segments with very long setae on inner side ( <i>cf.</i> Fig. 24A) (1) or setae not very long (0).
4	Head strongly convexe above eyes (2), head almost concave above eyes (1) or head moderately convexe above eyes (0).
5	Head with raised cephalic lobes (1) or without raised cephalic lobes (0).
6	Head without basal notch (0), with one basal notch (1) or with three basal notches (2).
7	Upper side of head with two lateral hairy areas reaching the mesorostrum (1) or head without such hairy areas (0).
8	Female with patch of white hair on head (1) or without patch of white hair on head (0).
9	Head with strong metarostral grooves and raised mesorostral plate (1) or without raised mesorostral plate (0).
10	Venter of head longitudinally grooved (1) or not grooved (0).
11	Prorostum very long, $> 0.8 \times$ head + mesorostrum + metarostrum (2), not very long, comprised between 0.5 and $0.8 \times$ head + mesorostrum + metarostrum (1) or short, $< 0.5 \times$ head + metarostrum + mesorostrum (0).
12	Metarostrum without lateral grooves (0), with small but distinct lateral grooves (1) or grooves well distinct (2).
13	Venter of mesorostrum forming a circular plate (0) or without circular plate (1).
14	Venter of mesorostrum with a weak projection on either side under antennal base ( <i>cf.</i> Fig. 25G) (1) or without projection (0).
15	Pronotum pyriform, much broader at base than at apex (1) or pronotum not pyriform, slightly larger at base than at apex (0).
16	Pronotum coarsely punctate (1) or pronotum not coarsely punctate (0).
17	Longitudinal groove of pronotum distinct from base to apex (0), deep at base and vanishing at apex (1), hardly distinct only at base (2) or missing (3).
18	Prothorax with median fovea in front of procoxae (1) or without fovea (0).
19	Prothorax of male with patch of hairs in front of procoxae (2), with transverse row of hair (1) or glabrous (0).
20	Prosternellum distinct ( <i>cf.</i> Fig. 23B) (0) or not distinct (1).
21	Profemora very large, flattened (1) or smaller, not flattened (0).
22	Protibiae very short, less than $3.0 \times$ longer than broad (1) or more than $3.0 \times$ longer than broad (0).
23	Procoxae hairy in male (1) or glabrous (0).
24	Apex of protibiae with a calcar (1) or without calcar (0).
25	Tibial spur formula: 2, 2, 2 (0) or 1, 2, 2 (1) or 0, 2, 2 (2).
26	Third protarsomere bilobed (0) or not bilobed (1).
27	Metasternum laterally carinate (1) or laterally not carinate (0).
28	Metafemora with a groove on dorsal side (1) or without dorsal groove (0).
29	Elytral interstria 1 rolled at apex (1) or not (0).
30	Elytral interstria 2 distinct from base to apex (0), distinct at base and apex but missing in the median part (1), distinct only at apex (2) or missing (3).
31	Elytral interstria 4 not reaching base of elytra (1) or reaching base of elytra (0).
32	Male: external apical border of elytra formed by interstria 6 (3), 8 (2), 9 (1) or 10-11 (0).
33	Female: external apical border of elytra formed by interstria 7 (3), 8 (2), 9 (1) or 10-11 (0).
34	Elytra with darker post-median blotch (1) or without darker post-median blotch (0).
35	Elytra glabrous (0), with long and fine setae (1) or with squamulose setae (2).
36	Apex of elytra with strong caudal processes (1) or without strong caudal processes (0).
37	Apex of elytra notched (1) or not notched (0).
38	Hindwings with sclerotised basal sclerite (2), weakly sclerotised basal sclerite ( <i>cf.</i> Fig. 25H) (1) or sclerite missing ( <i>cf.</i> Fig. 23J) (0).
39	Hindwings with only one primary anal vein ( <i>cf.</i> Figs 23J; 25H) (1) or with two primary anal veins (0).
40	Sternites III-IV laterally carinate (1) or laterally not carinate (0).
41	Sternites V-VI with basal notch (1) or without basal notch (0).
42	Sternite VII with basal notch (1) or without basal notch (0).
43	Sternite VII with very large semi-circular basal notch (1) or notch smaller or missing (0).
44	Sternite VII of male without apical fovea (0) or with apical fovea (1).
45	Sternite VII of female without apical fovea (0) or with apical fovea (1).
46	Sternite VII latero-apically with two depressions (1) or without depressions (0).
47	Apex of tergite VIII of female concave or straight (1) or convexe (0).
48	Epipleurites VIII with long apodeme (1) or with short apodeme (0).

TABLE 2. — Continuation.

Characters
49 Male genitalia with parameres filiform (1) or not filiform (0).
50 Male genitalia with parameres fused (1) or not fused (0).
51 Gonocoxites free (0) or fused at least at base (1).
52 Gonocoxites very long (1) or short (cf. Fig. 3I) (0).
53 Styli apical (cf. Figs 1G; 3I) (0) or lateral (cf. Figs 23I; 25F) (1).
54 Styli reduced (1) or distinct (0).
55 Apex of gonocoxites with sclerified lateral tooth (cf. Figs 23I; 25F) (1) or without sclerified lateral tooth (cf. Fig. 3I) (0).
56 Gonocoxites without lateral lobe (0), with one membranous lateral lobe (cf. Fig. 25F) (1) or with two membranous lateral lobes (cf. Fig. 23I) (2).
57 Spermatheca with a strong projection (cf. Fig. 25E) (1) or without strong projection (0).

TYPE SPECIES. — *Microtrachelizus rugosculpturatus* Kleine, 1939, by original designation.

DISTRIBUTION. — New Guinea.

#### REMARKS

This genus includes only one known species, *P. rugosculpturatus*. It is redescribed and illustrated in Mantilleri (2009b).

#### PHYLOGENY

Fifty-seven characters of the morphology of adults were used in the phylogenetic analysis (Table 1). The list of these characters is given in Table 2.

All these characters are parsimony informative. After the heuristic search (maximum of parsimony and all the characters equal-weighted), 50 000 trees of 248 steps (Consistency Index: 0.2984; Retention Index: 0.7152) were retained. A strict consensus tree was obtained from those trees (Fig. 28A). This tree is not at all fully resolved, as was expected with the number of characters used for phylogeny reconstruction, but some observations may be made. First, species of the tribes Hoplopisthiini and Microtrachelizini are the sister group of Cyphagogini, so they are more closely allied to Cyphagogini than to Trachelizinae. This sister-group relationship is strongly supported by a bootstrap value of 86% and five synapomorphies: venter of mesorostrum without circular plate, apex of protibia with a calcar, third protarsomere not bilobed, hindwings with only one primary anal vein and gonocoxites fused at least at base. This confirms that

placement of Microtrachelizini in Trachelizinae by Zimmerman (1994) is erroneous. Monophyly of (Hoplopisthiini + Microtrachelizini) is supported by several synapomorphies: venter of mesorostrum with a weak projection on either side under antennal base, external apical border of elytra formed by interstria 9 (or, exceptionally, 6, 7 or 8, but never 10–11), hindwings with only one anal vein, sternite VII latero-apically with two depressions, tegmen ring-shaped, parameres reduced and filiformous, apex of gonopodes IX with a sclerified lateral tooth (*Araiorrhinus* and *Neohigonius* are the exceptions) and styli strongly reduced. Bootstrap value for this clade is high (79%).

The second important observation is that members of the tribe Hoplopisthiini *sensu* Zimmerman (1994) (i.e. species of the genus *Hoplopisthius*) form a monophyletic group included in Microtrachelizini, sister group of the genus *Entomopisthius*. This clade (*Hoplopisthius* + *Entomopisthius*) is supported by four synapomorphies: last three antennal segments flattened, pronotum pyriform much broader at base than at apex, profemora very large and flattened, and protibiae very short (less than 3.0× longer than broad). But bootstrap value is low, < 50%.

The clade Microtrachelizini is not resolved, with a large polytomy. Twelve monophyletic groups are present in this polytomy: the genus *Araiorrhinus*, supported by one unambiguous synapomorphy (character 2, last antennal segment strongly acuminate at apex) and bootstrap value of 72%; the genus *Aneorhachis*, as previously hypothesised (Mantilleri 2011a); the two genera *Higonius* and *Neohigonius*

(as in Mantilleri 2009b), but *Pseudohigonius* is not sister-group of these two genera, contrary to previous hypothesis (Mantilleri 2009b); the genus *Parapisthius*, with all members of this genus (including *P. suturalis* n. comb.) sharing one derived character, the first interstria at apex of elytra being rolled (character 29); *Hoplopisthius* and *Entomopisthius* form a clade as mentioned above, supported by one unambiguous synapomorphy (character 21, profemora very large and flattened). For species belonging to the genus *Microtrachelizus*, six clades may be distinguished but for most of them bootstrap values are low and most of the time < 50%; only two clades have a bootstrap value > 50%, the first being composed of *M. weigeli* and *Anaraiorrhinus elongatus*, the second (bootstrap value: 51%) being composed of *M. lyratus* (type species of the genus) with *M. brevisulcatus*, *M. coomani*, *M. montrouzieri* and *M. queenslandicus*, supported by two derived characters: metarostrum with small but distinct lateral grooves (convergent with *Araiorrhinus*) and sternites V-VI without basal notch.

Regarding the genus *Anaraiorrhinus*, it is completely included in *Microtrachelizus*.

Results obtained with Bayesian analysis (Fig. 28B) are very similar to results obtained with maximum parsimony (MP) analysis, with a very strong support for sister-group relationship between Cyphagogini and (Hoplopisthiini *sensu* Zimmerman (1994) + Microtrachelizini) (Bayesian posterior probability: 100%). *Araiorrhinus* is monophyletic (Bayesian posterior probability: 99%) and *Howeius* is its sister-group (Bayesian posterior probability: 92%); these two genera share unique characters amongst other Microtrachelizini, as apical styli on female genitalia (instead of lateral) and last antennal segment strongly acuminate. The rest of the tree is very similar to the consensus tree obtained from MP analysis: *Aneorhachis*, (*Higonius* + *Neohigonius*), (*M. enigmaticus* + *M. monilicornis*), (*Hoplopisthius* + *Entomopisthius*) and (*M. brevisulcatus* + *M. coomani* + *M. lyratus* + *M. montrouzieri* + *M. queenslandicus*) are strongly supported (Bayesian posterior probability > 90%). *Parapisthius* seems to be monophyletic if *P. suturalis* n. comb. is included but support is quite weak (67%).

Comparison of both trees is made on Figure 28.

## DISCUSSION

The lack of resolution of the tree, particularly in the crown group of Oriental Microtrachelizini, is not only due to the great similarity between the species leading to a small number of characters available for phylogenetic analysis (with morphological differences difficult to code in the matrix) but also to the small number of known specimens for many species. Moreover, sometimes only one sex is known and important features for the phylogeny and identification are displayed on female genitalia (as for other Curculionoidea Latreille, 1802: see Gaiger & Vanin [2008]) and abdomen of both sexes. On 72 Hoplopisthiini included in the phylogenetic analysis, 26 are known by only one sex (17 by the male only and 9 by the female only). Then, there are numerous missing characters in the matrix. All these factors cause a decrease in the resolution of the tree.

Anyway, the results of the phylogeny show that Microtrachelizini and Hoplopisthiini undoubtedly form a clade, Hoplopisthiini being included in Microtrachelizini. Several synapomorphies are shared between these two tribes. Hoplopisthiini might even be the sister-group of the genus *Entomopisthius* as shown on the trees. For these reasons, it is necessary to synonymise these two groups, Microtrachelizina Zimmerman, 1994 becoming a junior synonym of Hoplopisthi Senna & Calabresi, 1919.

Then Hoplopisthiini *sensu* Senna are probably closely allied to Cyphagogini. Indeed, several unambiguous synapomorphies are shared between these two tribes: venter of mesorostrum without rounded area below the insertion of antennae, styli inserted laterally on the gonopodes IX (with the exception of the species of the genera *Araiorrhinus* and *Howeius*, and *Anaraiorrhinus elongatus*) and gonopodes IX fused at least at their base. All these characters are never found in Trachelizinae.

Concerning the origin of Hoplopisthiini, and considering the present geographical distribution of this tribe and the phylogeny obtained in this study, hypothesis may be proposed. Hoplopisthiini are totally missing in the Neotropical region, poorly represented by only five species in the Afrotropical region, but are very diverse in Oriental and Australasian



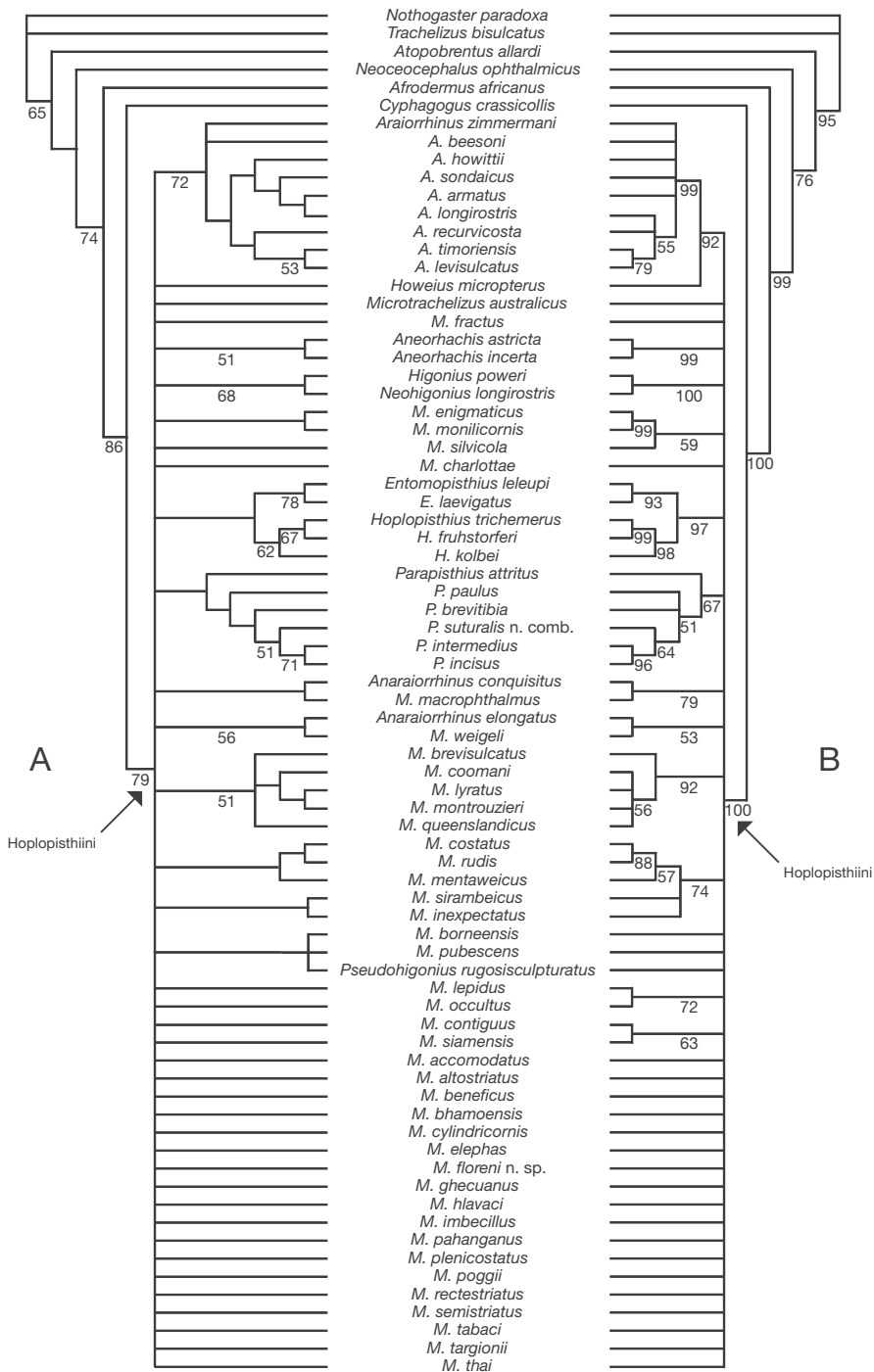


FIG. 28. — **A**, strict consensus cladogram of 10000 trees resulting of the Maximum Parsimony analysis; length = 248 steps, numbers mapped on branches give the bootstrap value when it is > 50%; **B**, 50% majority rule cladogram from the Bayesian analysis, numbers on branches give the posterior probability (%) for the respective node.

regions. From the results of these phylogenetic analysis, it is not possible to know the most basal lineage amongst Hoplopisthiini and the origin of this group remains unclear. Two hypotheses may be formulated:

1) Gondwanian origin. The complete lack of this tribe in South America may indicate that this group appeared after complete separation of South America from Africa (c. 90 Mya) or that it appeared in the easternmost part of Gondwana at anterior periods, and did not reach South America before its separation from the rest of Gondwana. On the base of previous results obtained with the genera *Higonius* and *Neohigonius* (Mantilleri 2009b) whose common ancestor is supposed to be at least 120 My-old (end of Jurassic), the second hypothesis should be preferred. Climatic conditions at this time (Late Jurassic) may have helped to prevent colonisation of South America by Hoplopisthiini as climate was very dry in this part of the world (Scotese 2002; Iglesias *et al.* 2011) and these beetles are typically wet forests inhabitants. When the different parts of eastern Gondwana broke up during Cretaceous (90–65 Mya), some groups drifted northwards on Indian plate and reached Southeast Asia when India collided with Eurasia around 40 Mya; they then spread out mostly eastward to colonise Malay Peninsula and Pacific islands (*Higonius* [see Mantilleri 2009b], *Hoplopisthius* [see Mantilleri 2010a], and *Aneorhachis* [see Mantilleri 2011a]).

2) Oriental origin. The group may have its origin in Oriental region at more recent period and then colonised New Guinea and Australia to the East and, very moderately, Africa to the West (maybe during Middle to Upper Eocene as climate was warm and quite wet in this part of the World).

All the African Hoplopisthiini do not have the same origin and do not form a monophyletic group. For *Microtrachelizus fractus*, *M. imbecillus* and *M. rectestriatus*, it is unclear. But *Parapisthius suturalis* n. comb. and *Entomopisthius leleupi* are more probably “recent” migrants whose ancestors reached Africa from Asia, both of them being included in Asian groups.

It is curious to notice that no Hoplopisthiini are endemic from Madagascar and that the sole species occurring on this island, which was formerly part of

Gondwana, is *M. rectestriatus*, very widespread in tropical Africa (and probably a quite recent migrant to Madagascar). This case is very similar to what is observed in the brentid tribe Stereodermini, whose sole representative in Madagascar is the African species *Cerobates (Ionthocerus) zanzibaricus* (Senna, 1898) (Mantilleri 2009c).

In New Caledonia, only one species (*M. lyratus*) also occurs but, on the contrary, it is endemic to this island. However it does not seem to represent an old Gondwanian lineage. It is closely allied to *M. montrouzieri*, species widespread from Thailand to Australia (but not occurring in New Caledonia); *M. lyratus* is very probably the vicariant species of *M. montrouzieri* and colonisation of this island by Hoplopisthiini could be quite recent as it is the case for other arthropods such as members of the genus *Angustonicus* Grandcolas, 1997 (Insecta, Dictyoptera, Blattidae) (Murienne *et al.* 2005).

## CATALOGUE OF THE TRIBE HOPLOPISTHIINI

In order to facilitate further studies on this group and curational work in collections, a comprehensive up-to-date list of Hoplopisthiini (including synonyms) is given in the Appendix.

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## APPENDIX

Catalogue of the tribe Hoplopisthiini Senna &amp; Calabresi, 1919

- Anaraiorrhinus* Damoiseau, 1987  
*A. conquisitus* (Kleine, 1925)  
*A. elongatus* Goossens, 2005
- Aneorhachis* Kleine, 1923  
*A. stricta* Kleine, 1923  
*A. fijiana* Mantilleri, 2009  
*A. hirta* (Kabakov, 2001)  
*A. incerta* (Kleine, 1935)  
 syn. *Higonius nitens* Goossens, 2008  
*A. monticola* Damoiseau, 1987  
*A. papuana* Mantilleri, 2011  
*A. sumatrana* Mantilleri, 2011
- Araiorrhinus* Senna, 1893  
*A. armatus* Damoiseau, 1987  
*A. beelsoni* Kleine, 1925  
*A. howittii* (Pascoe, 1872)  
 syn. *A. australicus* Senna, 1893  
*A. levisulcatus* Damoiseau, 1987  
*A. lieftincki* Kleine, 1939  
*A. longirostris* Senna, 1893  
 syn. *A. exportatus* Senna, 1893  
*A. recurvicosta* Damoiseau, 1966  
*A. sondaicus* Senna, 1893  
*A. timoriensis* Damoiseau, 1987  
*A. zimmermani* Mantilleri, 2011
- Entomopisthius* Muizon, 1959  
*E. leleupi* Muizon, 1959  
 syn. *Carcinopisthius emarginatus* Schedl, 1961  
 syn. *E. perstriatus* Damoiseau, 1961  
*E. laevigatus* Mantilleri, 2011
- Higonius* (*Higonius*) Lewis, 1883  
*H.* (s. str.) *angustirostris* Damoiseau, 1987  
*H.* (s. str.) *bituberculatus* Mantilleri, 2009  
*H.* (s. str.) *cilo* Lewis, 1883  
*H.* (s. str.) *crux* Olliff, 1883  
*H.* (s. str.) *hirsutus* Senna, 1893  
 syn. *H. bilobicolis* Senna, 1898  
 syn. *H. malayanus* Mantilleri, 2007  
*H.* (s. str.) *myersi* Mantilleri, 2009  
*H.* (s. str.) *perpusillus* Kleine, 1944  
*H.* (s. str.) *poweri* Lewis, 1883  
*H.* (s. str.) *spongiosus* Mantilleri, 2009  
*H.* (s. str.) *trisulcatus* Damoiseau, 1987
- Higonius* (*Higonodes*) Zimmerman, 1994  
*H.* (*H.*) *niassicus* Senna, 1893  
 syn. *H.* (*H.*) *nudus* Kleine, 1920  
*H.* (*H.*) *novenarius* Damoiseau, 1987  
*H.* (*H.*) *philippinensis* Mantilleri, 2009
- Higonius* (*Taphrocomister*) Senna, 1895  
*H.* (*T.*) *apicalis* Mantilleri, 2009  
*H.* (*T.*) *grouvellei* Senna, 1893  
*H.* (*T.*) *reconditus* Kleine, 1933  
*H.* (*T.*) *singularis* (Senna, 1895)  
 syn. *H. abruptus* Kleine, 1935
- Hoplopisthius* (*Hoplopisthius*) Senna, 1892  
*H.* (s. str.) *trichemerus* Senna, 1892  
 syn. *H. celebensis* Kolbe, 1892  
 syn. *H. javanus* Kolbe, 1892
- Hoplopisthius* (*Carcinopisthius*) Kolbe, 1892  
*H.* (*C.*) *fruhstorferi* (Kolbe, 1892)  
 syn. *Carcinopisthius interrupticosta* Senna, 1898  
*H.* (*C.*) *oberthueri* Senna, 1893  
 syn. *Carcinopisthius felschei* Kolbe, 1892  
 syn. *Carcinopisthius maculatus* Senna, 1903  
 syn. *Pseudotaphroderes formosanus* Bolkay, 1911
- Hoplopisthius* (*Pseudotaphroderes*) Bolkay, 1911  
*H.* (*P.*) *doriae* Senna, 1893  
*H.* (*P.*) *forcipitiger* (Damoiseau, 1987)  
 syn. *Carcinopisthius lamingtoni* Damoiseau, 1987  
*H.* (*P.*) *kolbei* Senna, 1893  
 syn. *Carcinopisthius papuanus* Senna, 1894  
 syn. *Pseudotaphroderes forficatus* Bolkay, 1911  
 syn. *Pseudotaphroderes papuanus* Bolkay, 1911  
 syn. *Stratiopisthius forficula* Arrow, 1940

- H. (P.) loriae* (Senna & Calabresi, 1919)  
*H. (P.) maximus* Mantilleri, 2010  
*H. (P.) ocularis* (Damoiseau, 1987)

*Howeius* Mantilleri, 2011

- H. micropterus* Mantilleri, 2011

*Microtrachelizus* Senna, 1893

(= *Ceunonus* Kleine, 1922)

- M. accomodatus* Kleine, 1922  
 syn. *M. fluxus* Kleine, 1923  
*M. altostratus* Mantilleri, 2011  
*M. australicus* Mantilleri, 2011  
*M. beneficus* Kleine, 1925  
*M. bhamoensis* (Senna, 1892)  
 syn. *M. apertus* Kleine, 1925  
*M. borneensis* Damoiseau, 1987  
*M. brevisulcatus* Senna, 1894  
 syn. *M. dubius* Kleine, 1935  
*M. charlottae* Mantilleri, 2010  
*M. contiguus* (Senna, 1893)  
 syn. *M. sternopilosus* Damoiseau, 1987  
 syn. *M. temporalis* Damoiseau, 1987  
*M. coomani* Damoiseau, 1987  
*M. costatus* Damoiseau, 1987  
 syn. *M. compactus* Mantilleri, 2010  
*M. cylindricornis* (Power, 1880)  
 syn. *M. reductus* Kleine, 1941  
*M. elephas* Mantilleri, 2011  
*M. enigmaticus* Mantilleri, 2007  
*M. floreni* n. sp.  
*M. fractus* Kleine, 1924  
*M. ghecuanus* (Senna, 1892)  
*M. hlavaci* Mantilleri, 2010  
*M. imbecillus* Kleine, 1926  
*M. inexpectatus* Mantilleri, 2007  
*M. lepidus* Mantilleri, 2007  
*M. lyratus* (Perroud & Montrouzier, 1865)  
*M. macrophthalmus* Mantilleri, 2010  
*M. mentaweicus* Senna, 1898

- M. monilicornis* Damoiseau, 1987  
*M. montrouzieri* Senna, 1902  
 syn. *M. laevis* Damoiseau, 1987  
*M. occultus* Kleine, 1935  
 syn. *M. pseudobhamoensis* Mantilleri, 2007  
*M. pahanganus* Mantilleri, 2007  
*M. plenicosatus* Damoiseau, 1987  
*M. poggii* Mantilleri, 2007  
*M. pubescens* Senna, 1893  
*M. queenslandicus* Damoiseau, 1987  
*M. rectestriatus* (Fairmaire, 1897)  
 syn. *M. aethiopicus* Calabresi, 1920  
 syn. *Ceunonus minutus* Kleine, 1922  
 syn. *M. sordidus* Kleine, 1922  
 syn. *M. copulatus* Kleine, 1924  
 syn. *M. captiosus* Kleine, 1924  
*M. rudis* Kleine, 1937  
*M. semistriatus* Damoiseau, 1987  
*M. siamensis* Kleine, 1926  
*M. silvicola* Senna, 1902  
*M. srambeicus* Senna, 1902  
*M. tabaci* Senna, 1893  
*M. targionii* Senna, 1893  
*M. thai* Mantilleri, 2010  
*M. weigeli* Mantilleri, 2010

*Neohigonius* Goossens, 2005

- N. longirostris* Goossens, 2005

*Parapisthius* Kleine, 1935

- P. attritus* (Kleine, 1923)  
 syn. *P. gracilis* Damoiseau, 1987  
*P. brevitibia* (Senna, 1892)  
*P. incisus* (Kleine, 1935)  
*P. intermedius* Kleine, 1935  
*P. paulus* Kleine, 1938  
*P. suturalis* (Damoiseau, 1961) n. comb.

*Pseudohigonius* Damoiseau, 1987

- P. rugosisculpturatus* (Kleine, 1939)

